# Appliance Documentation

## CBNes 6256 from Index 20

NoFrost combined fridge-freezer with BioFresh, 91cm wide
(refrigerator compartment with FrenchDoor – freezer compartment with pull-out units)

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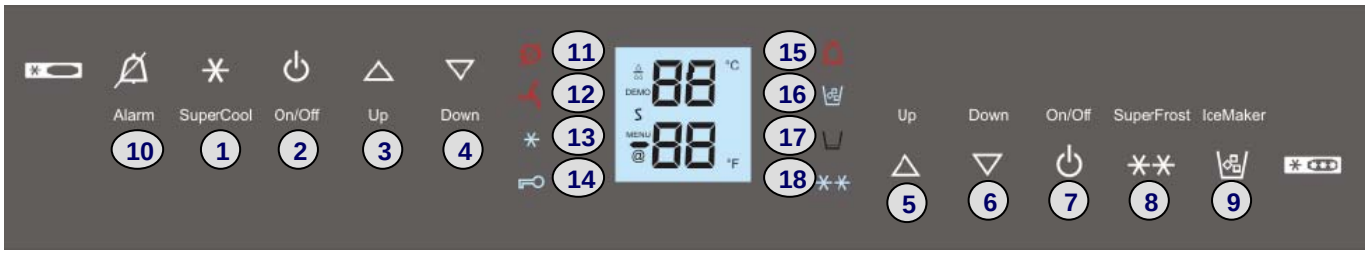
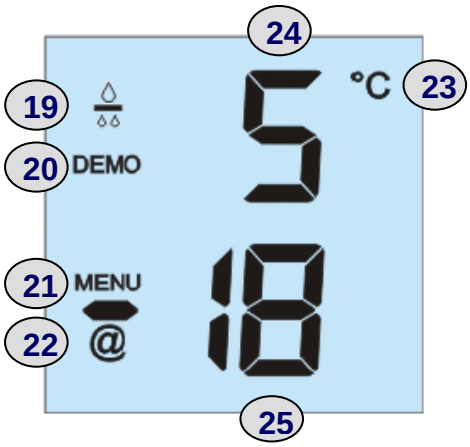
# 1.0 Operating and control elements




**Control elements:**

| Refrigerator compartment | | | Freezer compartment | | |
|---|---|---|---|---|---|
| **1** | **SuperCool** | SuperCool function | **5** | **Up** | Setting button temperature **higher** |
| **2** | **ON/OFF** | ON/OFF button for refrigerator compartment | **6** | **Down** | Setting button temperature **lower** |
| **3** | **Up** | **Setting button** temperature **higher** | **7** | **ON/OFF** | ON/OFF button for freezer compartment |
| **4** | **Down** | **Setting button** temperature **lower** | **8** | **SuperFrost** | SuperFrost function |
| | | | **9** | **IceMaker** | ON/OFF button for IceMaker |
| General | | | | | |
| **10** | **Alarm** | Alarm OFF button for audible alarm | | | |

**Control elements:**

| Front panel | | MagicEye | |
|---|---|---|---|
| **11** | Power failure | **19** | Replace water filter |
| **12** | Dust filter cleaning (plinth) | **20** | Demo mode activated |
| **13** | SuperCool activated | **21** | Customer menu activated |
| **14** | Child lock activated | **22** | HomeDialog activated |
| **15** | Alarm | **23** | Temperature display in °C |
| **16** | IceMaker switched ON | **24** | Refrigerator compartment temperature |
| **17** | inactive | | |
| **18** | SuperFrost activated | **25** | Freezer compartment temperature |

## 2.0 Functions at a glance

| | | |
|---|---|---|
| **Control:** | Electronic | |
| **Temperature display:** | Refrigerator compartment:<br>Freezer compartment: | Actual value<br>Actual value |
| **Temperature range:** | Refrigerator compartment:<br>Freezer compartment: | +3°C to +9°C<br>-14°C to -28°C |
| **Temperature alarm:** | Refrigerator compartment:<br>BioFresh compartment:<br>Freezer compartment: | Not present<br>Not present<br>Visual, audible |
| **Door alarm:** | Refrigerator compartment:<br>Freezer compartment: | Audible<br>Audible |
| **Fan:** | Refrigerator compartment:<br>Freezer compartment: | Present<br>Present |
| **Defrosting:** | Refrigerator compartment:<br>Freezer compartment: | Automatic<br>Automatic |
| **Interior light:** | Refrigerator compartment:<br>BioFresh compartment:<br>Freezer compartment: | Present<br>Present<br>Present |
| **Service menu:** | Present | |
| **Compressor:** | Refrigerator compartment:<br>Freezer compartment: | Standard<br>VCC |
| **Solenoid valve refrigeration circuit:** | Not present | |

# 3.0 Description of appliance

The **CBNes 6256** is a combined refrigerator-BioFresh-freezer with a NoFrost freezer compartment. The appliance has two compressors.

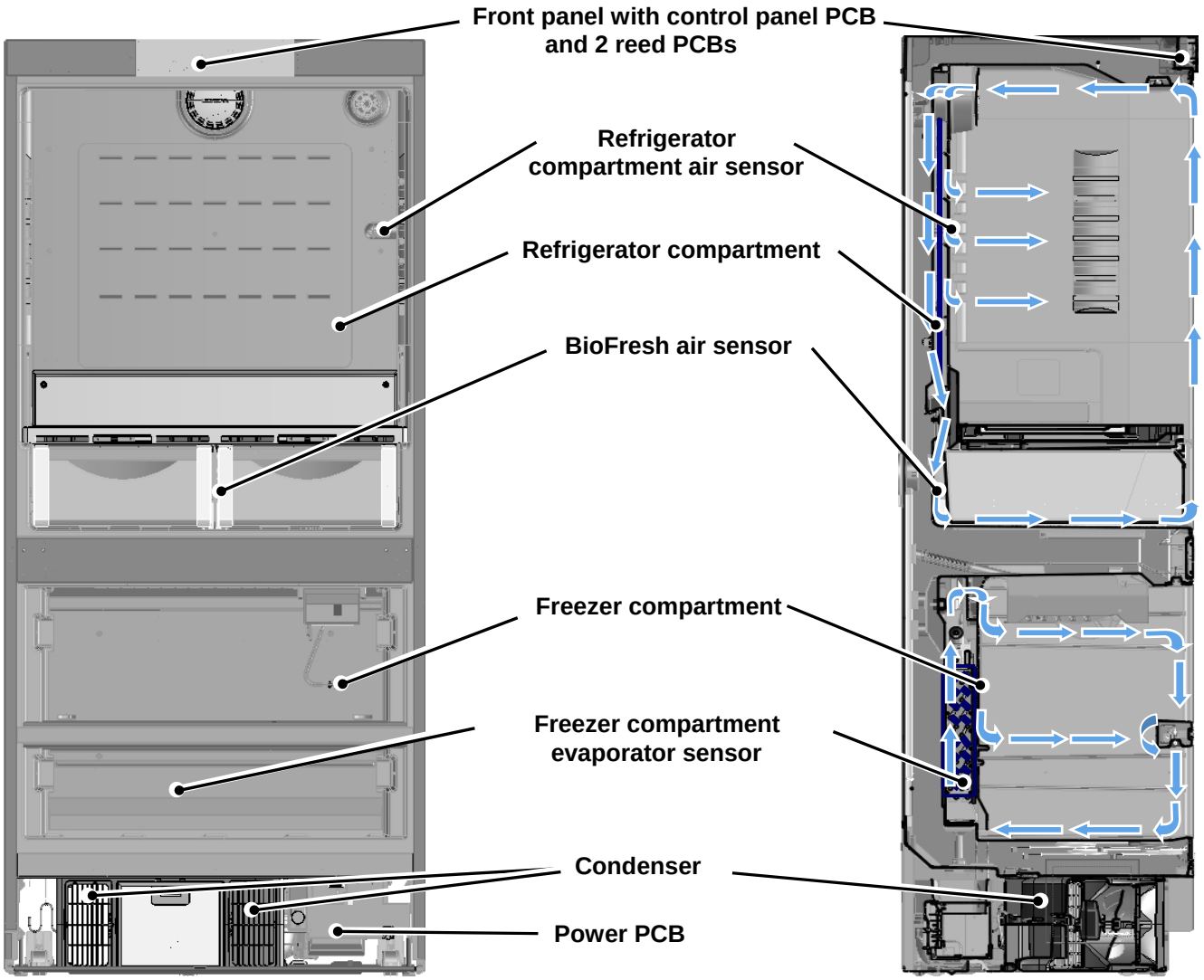
The refrigerator compartment and BioFresh compartment are cooled using a freely suspended rear wall evaporator. A DC fan is used for temperature balance between refrigerator compartment and BioFresh compartment. The fan is sited on the back of the evaporator cover.

If the refrigerator compartment has to be cooled (detection by refrigerator compartment air sensor), the fan switches ON. The fan takes in the warm air from the front and blows it down past the evaporator. Some of the air that is now cold is conducted directly into the refrigerator compartment, i.e. past the BioFresh compartments up into the refrigerator compartment.

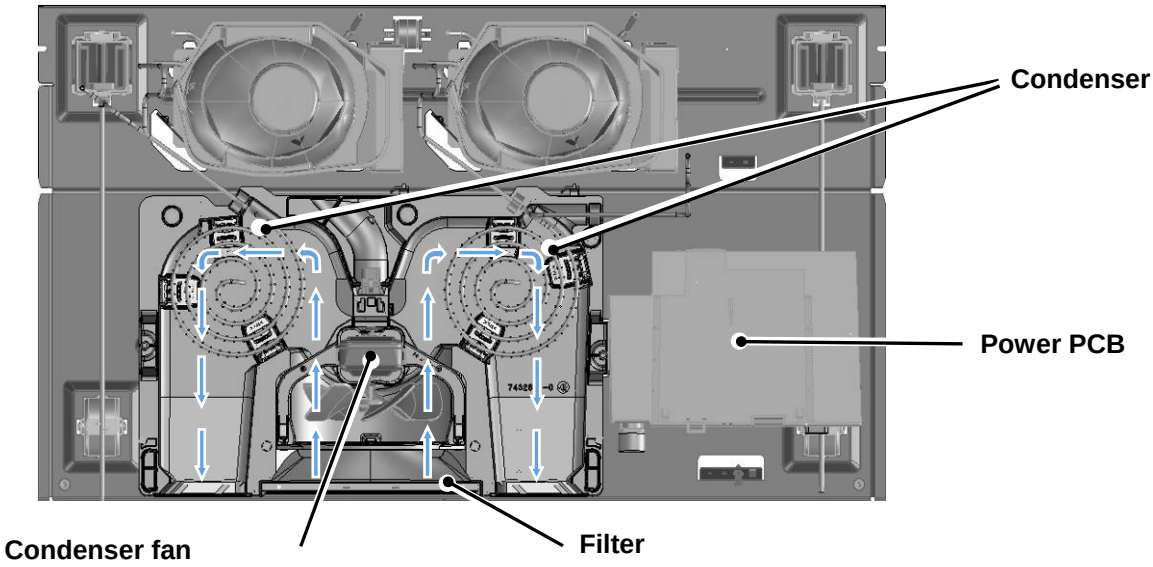
As soon as it is sufficiently cold in the refrigerator compartment, the fan switches OFF. The compressor continues running and the BioFresh drawers are statically cooled by the falling coldness. The compressor operates until such time as the air in the BioFresh compartment is cold enough (detection by BioFresh air sensor).

The freezer compartment is equipped with a NoFrost rear wall evaporator module, fan module, air sensor and evaporator sensor. The defrosting phases are initiated by way of the electronic control system, taking compressor running time and door openings into account.

## 3.1 Sensor positions, schematic diagrams




## 3.2 Plinth layout, schematic



# 4.0 Main components and their functions

## 4.1 Electrical components and functions

### 4.1.1 General

| | | |
|---|---|---|
| **Electronics** | | |
| **Type:** | Series 6 electronic control system | |
| **Components:** | Control panel and power PCB | |
| **Condenser fan** | | |
| **Position:** | In the appliance plinth | |
| **Function:** | ON: | - Refrigerator compartment compressor ON **or**<br>- Freezer compartment compressor ON. |
| | OFF: | - Refrigerator compartment compressor OFF **and**<br>- Freezer compartment compressor OFF |

### 4.1.2 Refrigerator/BioFresh compartment

| | | |
|---|---|---|
| **Electronics** | | |
| **Setting range:** | Refrigerator compartment: | +3°C to +9°C |
| **Display range:** | 3°C to 48°C (actual value display)<br>Temperatures equal to and lower than 3°C are displayed as 3°C. | |
| **Functions** | | |
| **SuperCool:** | ON: | Refrigerator compartment sets itself to +3°C for 6 hours. |
| | OFF: | The refrigerator compartment sets itself to the set value. |
| **Defrosting:** | Automatic during compressor standstill phase. | |
| **Door alarm:** | When: | If door is open, after 60 seconds. |
| | Audible: | 3 beeps. |
| **Sensors** | | |
| **Evaporator sensor:** | Position: | In sensor holder on the back of the evaporator. |
| | Function: | - Switches the refrigerator compartment compressor ON.<br>- Ends the defrosting phase. |
| **BioFresh air sensor:** | Position: | On the separating plate between the two BioFresh drawers. |
| | Function: | Switches the refrigerator compartment compressor OFF. |
| **Refrigerator compartment air sensor:** | Position: | In the evaporator cover. |
| | Function: | - Switches the refrigerator compartment fan ON and OFF.<br>- Generates the refrigerator compartment temperature display value. |
| **Ambient air sensor:** | Position: | On the power PCB. |
| | Function: | Influences the switch-off value of the BioFresh air sensor in order to minimise temperature fluctuations in the BioFresh compartment. |
| | Info: | A fault of this sensor is displayed in the service menu only.<br>In the event of a defect, the power PCB has to be replaced. |

## Switch

| | | |
|---|---|---|
| **Door switch:** | Position: | In front panel. |
| | Type: | 2x tube-type reed |
| | Contact type: | Make contact |
| | Function: | Activation via:<br>Magnet on both doors, magnet is replaceable.<br>Switching signal when:<br>Doors closed: fan ON<br>interior light OFF<br>Doors open: fan OFF<br>interior light ON<br>door alarm ON after 60 seconds |

## Loads

| | | |
|---|---|---|
| **Compressor:** | Type: | Standard |
| | Function: | ON: Evaporator sensor switch-on value<br>Note: On-delay time (8 mins.) must have elapsed.<br>OFF: BioFresh air sensor switch-off value |
| **Fan:** | Position: | Vertical separating plate. |
| | Function: | ON: Refrigerator compartment air sensor switch-on value<br>OFF: Refrigerator compartment air sensor switch-off value |
| | Control: | Low speed 9V/DC – during compressor standstill<br>High speed 11V/DC – during compressor operation |
| **Refrigerator compartment interior light:** | Position: | Inside right/left and ceiling |
| | Function: | - Shines as soon as the door is opened.<br>- Is switched OFF after door has been open for 15 minutes. |
| **BioFresh interior light:** | Position: | Inside right/left |
| | Function: | - Shines as soon as the door is opened.<br>- Is switched OFF after door has been open for 15 minutes. |
| **Heater for FrenchDoor seal:** | Position: | Threaded in the FrenchDoor seal in each case |
| | Function: | Can be activated by the customer if required (condensation) (see also section 7.0.) |
| **Water channel heater** | Position: | Adhesively affixed to the underside of the channel and foamed-in |
| | Function: | Permanently active |

### 4.1.3 Freezer compartment

| | | |
|---|---|---|
| **Electronics** | | |
| **Setting range:** | -14°C to -28°C | |
| **Display range:** | 0°C to -50°C (actual value display)<br>Values over 0°C are displayed by a dash. | |
| **Functions** | | |
| **Temperature alarm:** | Alarm value: | 4K warmer than set value |
| | SuperFrost alarm value: | -10°C. |
| | Delay: | 20 minutes |
| | Visual: | Flashing temperature display |
| | Audible: | 4 beeps |
| | During start-up: value | The temperature display flashes until the switch-off<br>is reached, the audible alarm is switched OFF. |
| | When the defrosting phase begins, the temperature alarm is suppressed for 1.5 hrs. | |
| **Defrosting:** | ON: | - During start-up after 6 hours cumulative compressor running time.<br>- After a cumulative compressor running time of 12 to 40 hours maximum, depending on the number/duration of the door openings.<br>When the defrosting phase begins, the compressor and the fan are switched OFF and the defrost heater is switched ON. |
| | Duration: | The defrost heater remains switched ON until<br>- the freezer compartment evaporator sensor has reached +5°C or<br>- a max. defrosting time of 50 minutes has been reached. |
| | Info: | - After the end of the heating phase the compressor is switched ON with a 10-minute delay.<br>- If SuperFrost is actuated during the defrosting phase, the defrosting phase is not interrupted. |
| **Door alarm:** | When: | If door is open, after 60 seconds. |
| | Audible: | 3 beeps. |
| **SuperFrost:** | ON: | The appliance sets itself to -34°C for at least 30 hours. In the following 35 hours SuperFrost is ended automatically after the temperature falls 8K below the set value (at -18°C -> -26°C) or after the total time of 65 hours has elapsed. |
| | OFF: | The freezer compartment sets itself to the set value. |
| | Attention: | If SuperFrost is actuated during a defrosting phase, the SuperFrost function is not performed before the defrosting phase has run. |

## Sensors

**Air sensor:**

Position: On the front of the evaporator cover

Function:
- Switches the freezer compartment compressor ON and OFF.
- Freezer compartment air sensor and freezer compartment evaporator sensor switch the freezer compartment fan ON.
- Generates the freezer compartment temperature display value.

**Evaporator sensor:**

Position: Slipped in, in the lower area of the lamellar evaporator.

Function:
- Freezer compartment evaporator sensor and freezer compartment air sensor, switch the freezer compartment fan ON.
- Ends the defrosting phase.

## Switch

**Door switch:**

Position: Behind the freezer compartment evaporator cover.

Type: 2x reed PCB

Contact type: Make contact

Function: Activation via:
Magnet in back right corner of the drawers.
Magnet is replaceable.

Switching signal when:

| | | |
|---|---|---|
| door closed: | fan | ON |
| | interior light | OFF |
| Door open**:** | fan | OFF |
| | interior light | ON |
| | door alarm | ON after 60 seconds |

## Loads

**Compressor:**

Type: VCC

Function:
ON: Air sensor switch-on value
Note: On-delay time (8 mins.) must have elapsed.
OFF: Air sensor switch-off value.

**Fan:**

Position: Top centre of freezer compartment.

Function:
ON:
- Compressor ON and
- freezer compartment door closed and
- evaporator sensor and air sensor switch-on value reached.

Switch-on value evaporator sensor:
a) during start-up / after defrosting phase: -20°C.
b) in normal operation 2K colder than freezer compartment air sensor.

OFF**:**
- Compressor OFF

**Defrost heater:**

Position: Clipped into lamellar evaporator.

Function: Defrosts the evaporator.
For activation, see: Functions Defrosting

**Interior light:**

Position: Underneath the crosspiece.

Function:
- Shines as soon as the door is opened.
- Is switched OFF after door has been open for 15 minutes.

## 4.2 Refrigeration components and functions

### 4.2.1 General

| Compressor | | |
|---|---|---|
| **Type:** | Refrigerator/BioFresh compartment: | Standard |
| | Freezer compartment: | VCC |
| **Refrigerant:** | R600a | |

### 4.2.2 Refrigerator/BioFresh compartment

| Evaporator | |
|---|---|
| **Type:** | Rear wall evaporator |
| **Type of installation:** | Suspended freely |
| **Injection point:** | At the top left |

### 4.2.3 Freezer compartment

| Evaporator | |
|---|---|
| **Type:** | Lamellar evaporator |
| **Type of installation:** | Upright between air duct panel and compartment liner. |
| **Injection point:** | Top right on lamellar evaporator. |

# 5.0 Assembly instructions / replacement of parts

## 5.1 General

### 5.1.1 Control panel electronics

**Covers:** - Disengage the covers at the marked locations.
- Unclip the front panel at the left and right.

**Fig. 5.1.1/ 1**

**Fig. 5.1.1/ 2**

**Front panel with PCB:** - Disengage and remove bus connector.

Note: Front panel is available as a spare part only in complete form, i.e. control PCB and tube-type reed are not separately available!

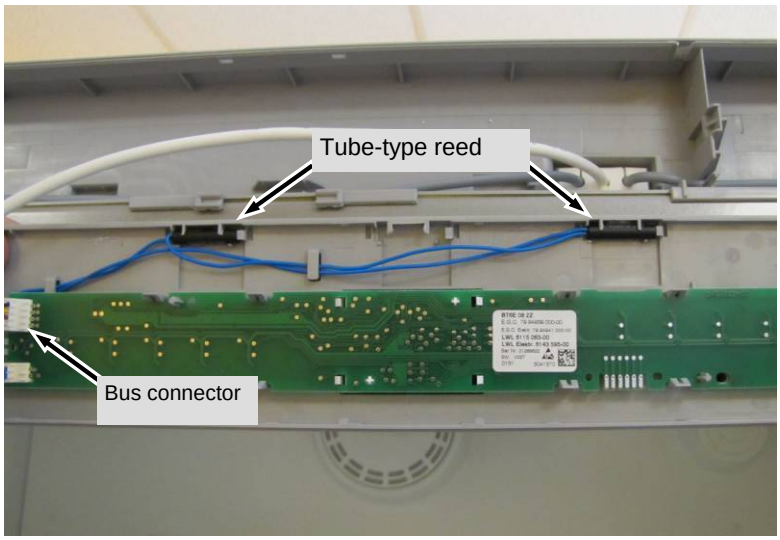



**Fig. 5.1.1 / 3**

### 5.1.2 Power electronics

**Ventilation grille:** - Remove the ventilation grille from the plinth of the appliance.
- Remove the fastening screw for strain relief and unclip the cover at the bottom.
- Draw the cover forwards a little at the bottom and disengage the clip at the top.

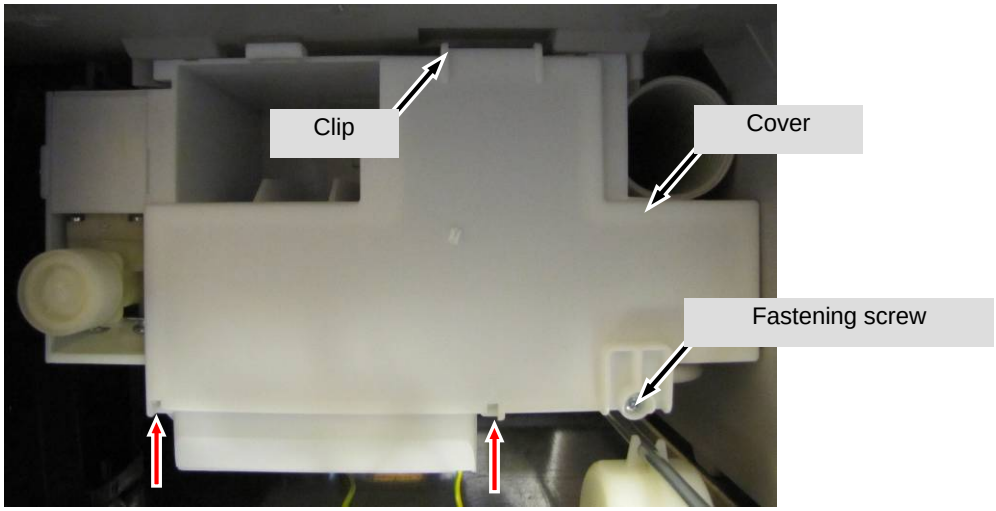



**Fig. 5.1.2 / 1**

**Cable mounting bracket:** - Unclip the cable mounting bracket at the marked location.
- Detach front PCB edge connectors.

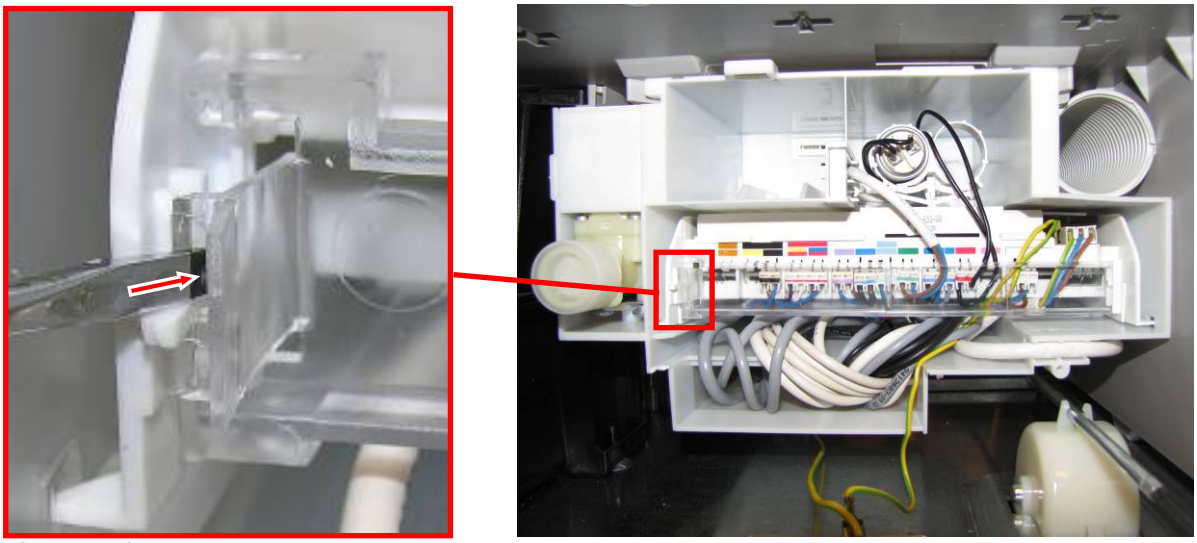


**Fig. 5.1.2 / 2**

**PCB carrier:** - Unclip the PCB carrier at the left and right and draw it out of the unit carrier.
- Detach feed line and rear PCB edge connectors (sensors, reed contact bus line).

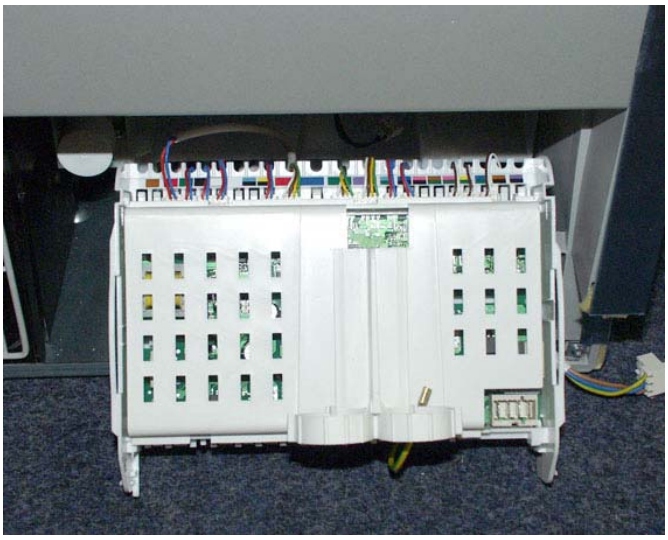


**Fig. 5.1.2 / 3**

**Power electronics:** - Unclip and remove cover of the PCB carrier.
- Disengage the PCB at the marked locations.

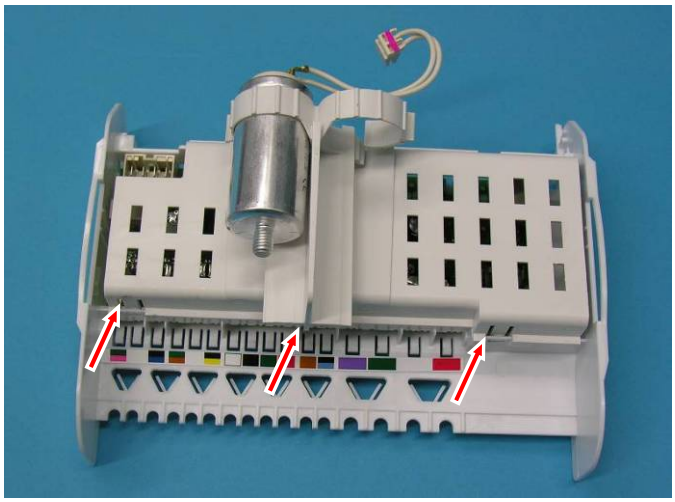


**Fig. 5.1.2/ 4**

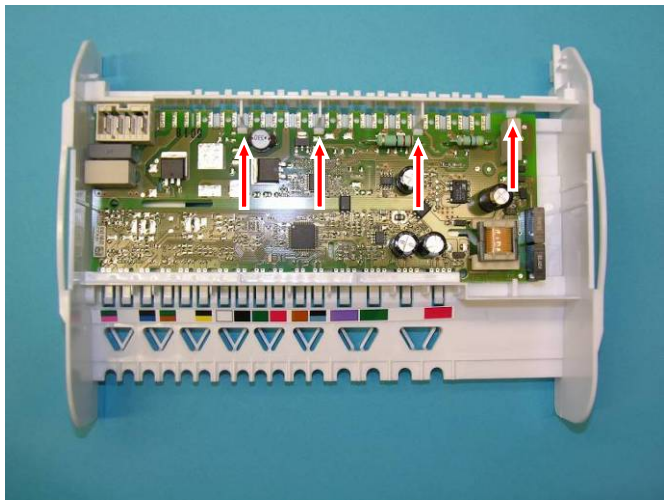


**Fig. 5.1.2/ 5**

### 5.1.3 Condenser fan

**Fan mount:** - Remove the ventilation grille and dust filter.
- Unclip the fan mount and draw it out of the funnel together with the motor.
- Electrical connection is established by means of rigid plug-in connector

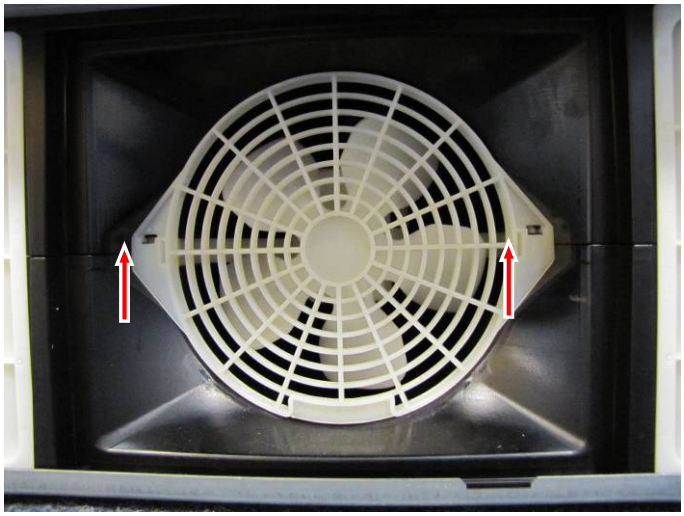


**Fig. 5.1.3/ 1**

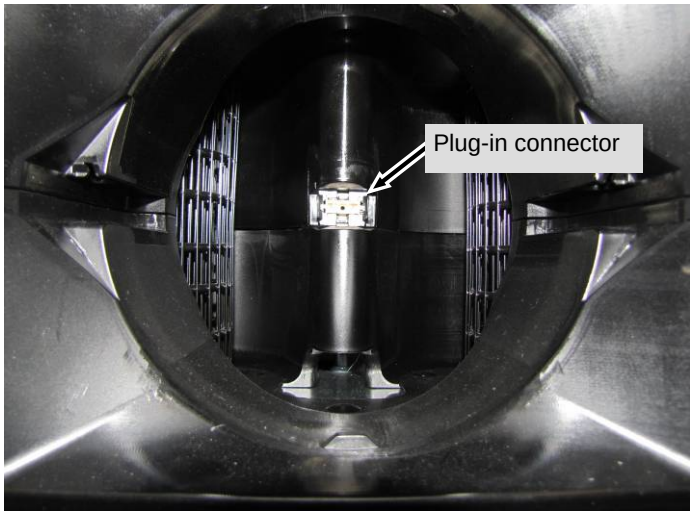



**Fig. 5.1.3/ 2**

**Fan:** - Strip the blades off the spindle.
- Unclip the fan motor from the mount.

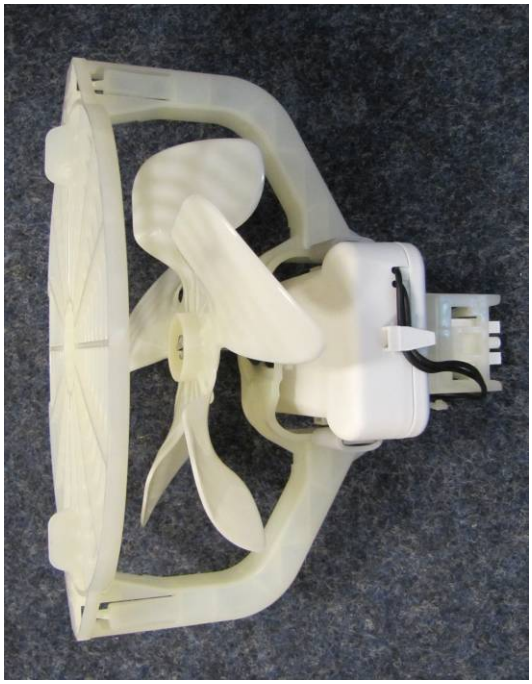


**Fig. 5.1.3/ 3**

**Fig. 5.1.3/ 4**

## 5.2 Refrigerator compartment

### 5.2.1 Doors

**Turn hinge cover:**
- Unclip the covers.
- Remove the cover of the upper turn hinge in a forward direction in each case.

**Fig. 5.2.1/ 1**

**Fig. 5.2.1/ 2**

**Connector:**
- Disconnect plug connector.
- Remove the front fastening screws of the upper turn hinge.

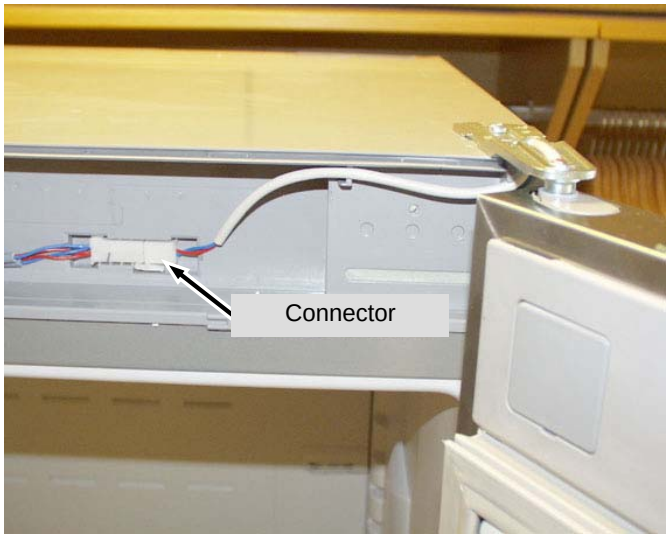



**Fig. 5.2.1/ 3**

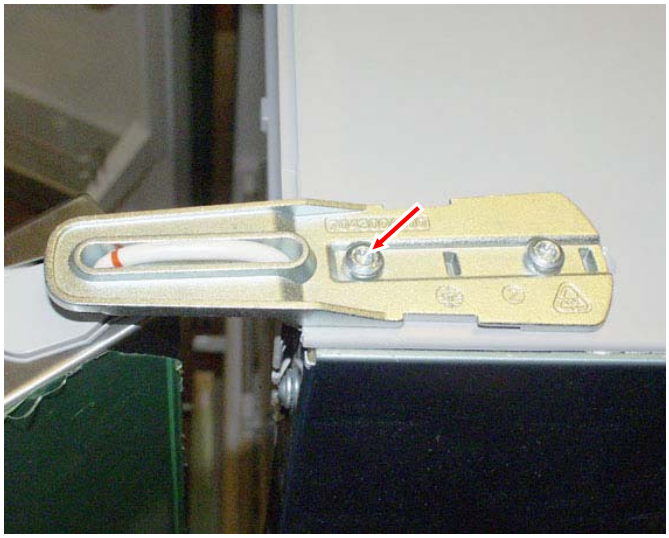


**Fig. 5.2.1/ 4**

**Lower hinge pin:**
- Undo the retaining screw in the lower turn hinge.
- Screw the upper turn hinge screw into the hinge pin and pull the hinge pin down.
- Undo the second screw of the upper turn hinge and remove the door.

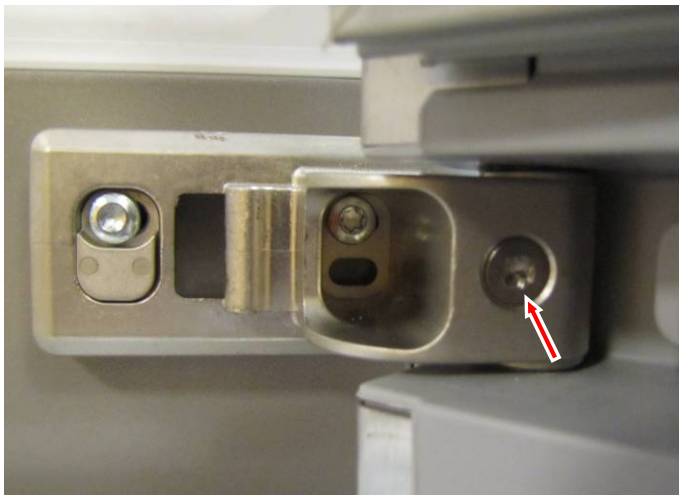


**Fig. 5.2.1/ 5**

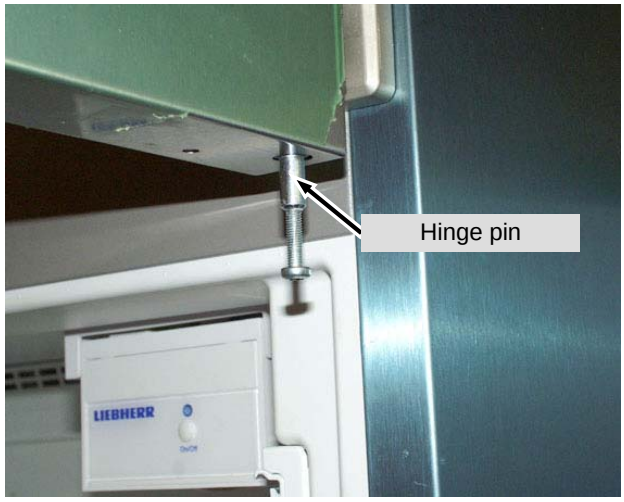



**Fig. 5.2.1/ 6**

## 5.2.2 Turn hinge with cable feedthrough

**Cable feedthrough:**
- Detach the cover on the inside of the door lengthening and disconnect the connector.
- Press the locating lug and lift off the cable feedthrough together with the turn hinge.

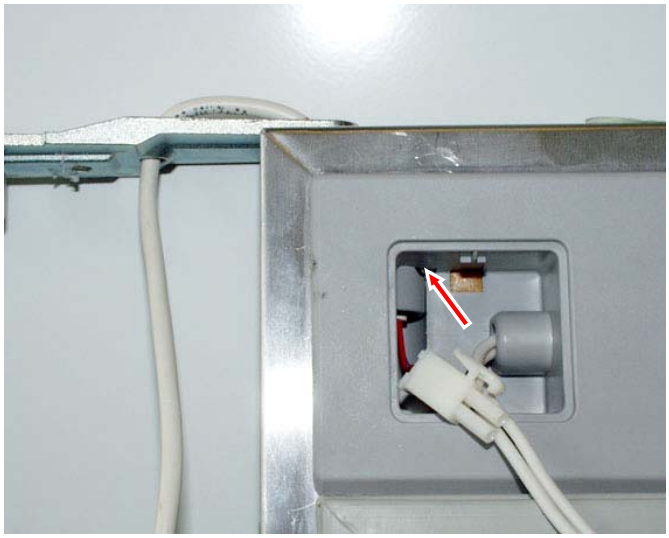


**Fig. 5.2.2/ 1**

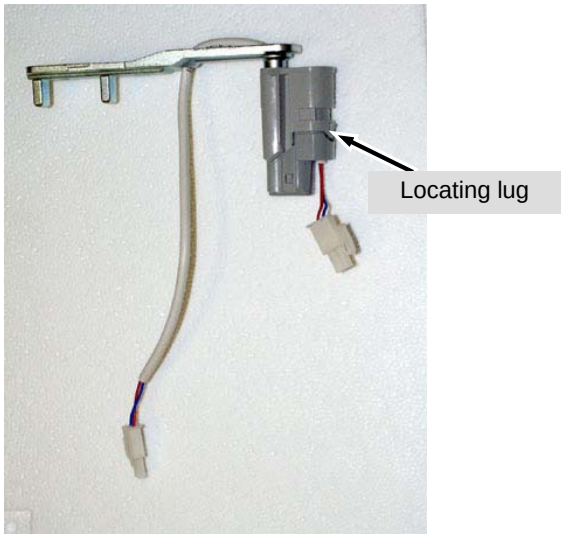



**Fig. 5.2.2/ 2**

### 5.2.3 Heater for FrenchDoor seal

**Connector:**
- Detach the cover on the inside of the door lengthening and disconnect the connector.
- Draw the seal out of the moulding in the upper area.
- Draw the heater cable first out of the seal and then through the tube in the door lengthening.

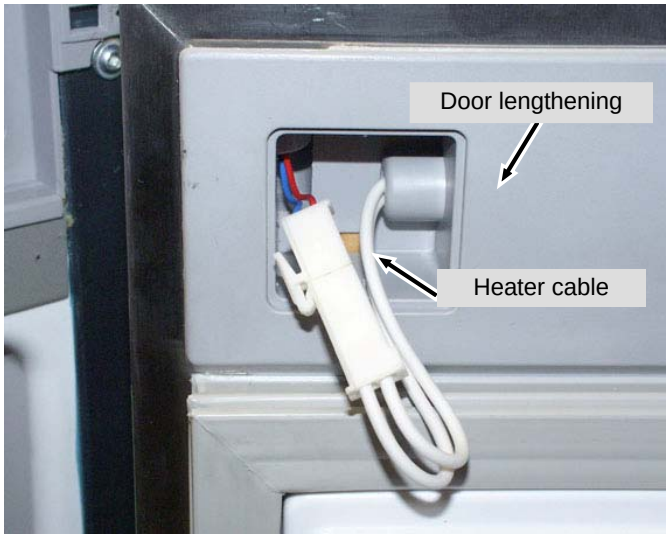



**Fig. 5.2.3/ 1**

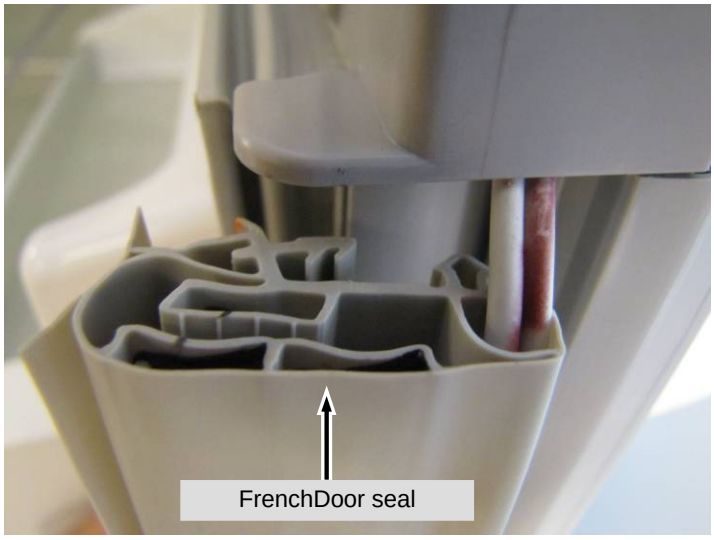



**Fig. 5.2.3/ 2**

**Insertion:**
- To insert the new heater, first push a thin, rigid cable or similar from underneath, through the seal and through the tube of the door lengthening.
- Insert the cable all the way to the lower edge of the seal. The heater is not allowed to protrude.
- Press the seal into the two grooves of the moulding.

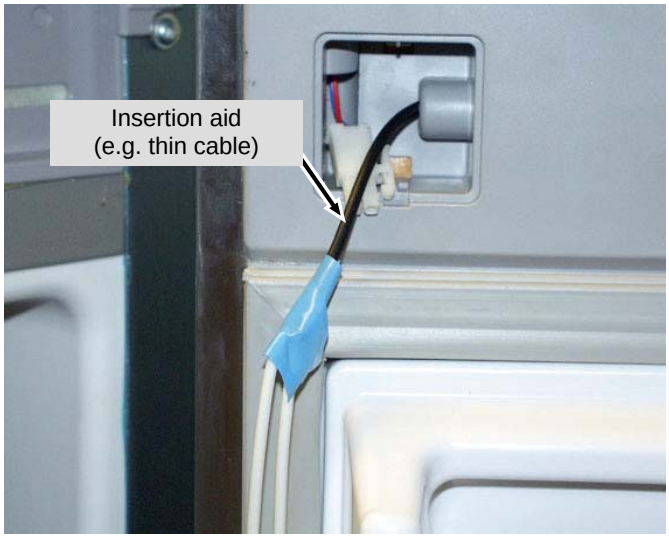



**Fig. 5.2.3/ 3**

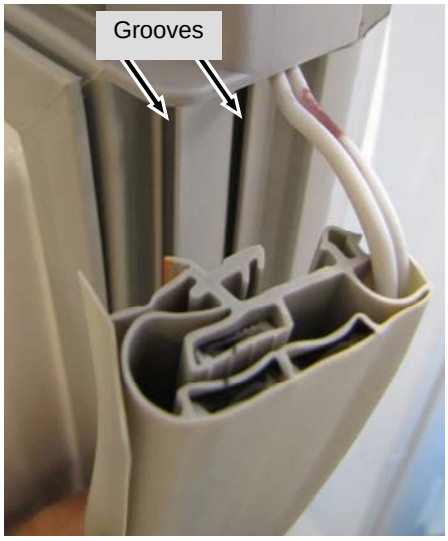



**Fig. 5.2.3/ 4**

## 5.2.4 FrenchDoor seal

**Fitting:**

- First press the narrow seal foot (1) into the rear groove of the moulding.
- Then press the second seal foot (2) into the front groove of the moulding.

Note: Following assembly, be sure to check whether especially the second seal foot is fully engaged with the groove (see diagram).

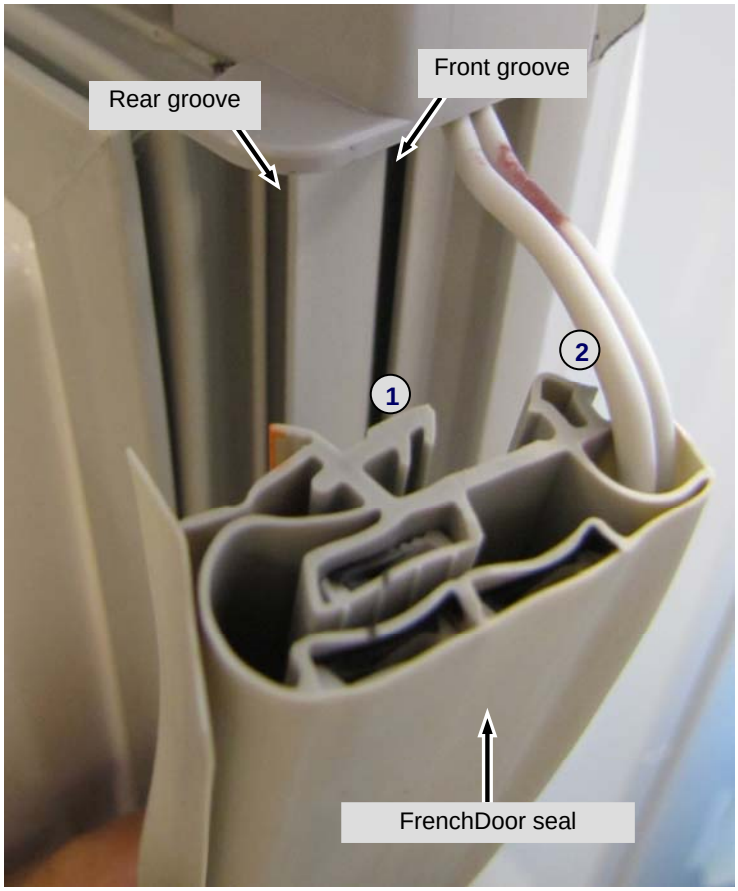



**Fig. 5.2.4/ 1**

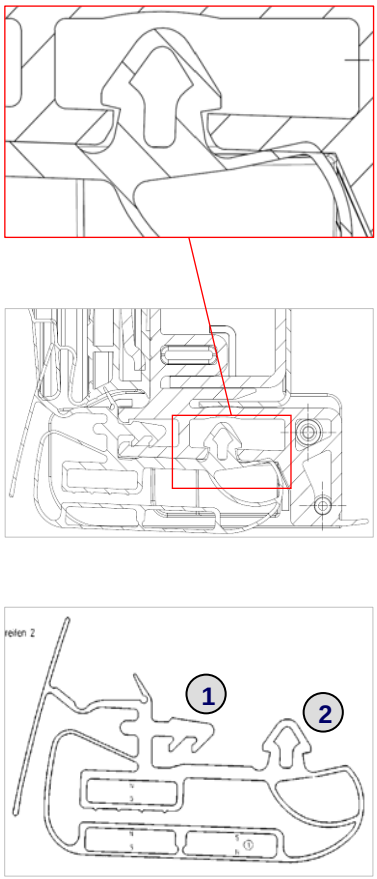



**Fig. 5.2.4/ 2**

**Colour coding:** The left and right seal differ in the arrangement of the magnetic strips and are therefore colour-coded on the inside

Note: In the end the appliance has to be fitted with two different seals.

Seal of the left-hand door (blue)

**Fig. 5.2.4/ 3**

Seal of the right-hand door (red)

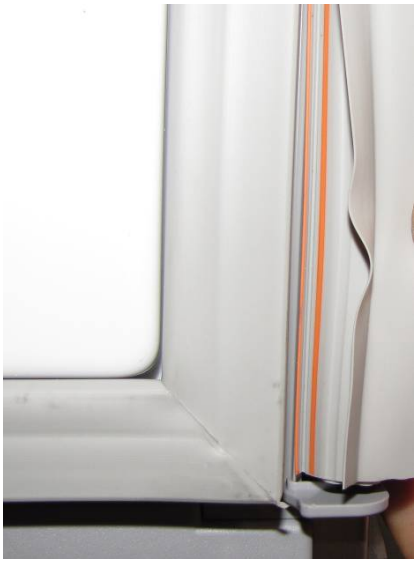


**Fig. 5.2.4/ 4**

### 5.2.5 Disassembling the horizontal separating plate and the evaporator covers

**Horizontal separating plate:**
- Remove the glass shelves in the refrigerator compartment and both BioFresh drawers.
- Pull the horizontal separating plate forwards with a jerk (it is only clipped into place).
- In order to be able to remove the separating plate from the appliance, both doors have to be pressed apart a little (if necessary, loosen the lower turn hinges).

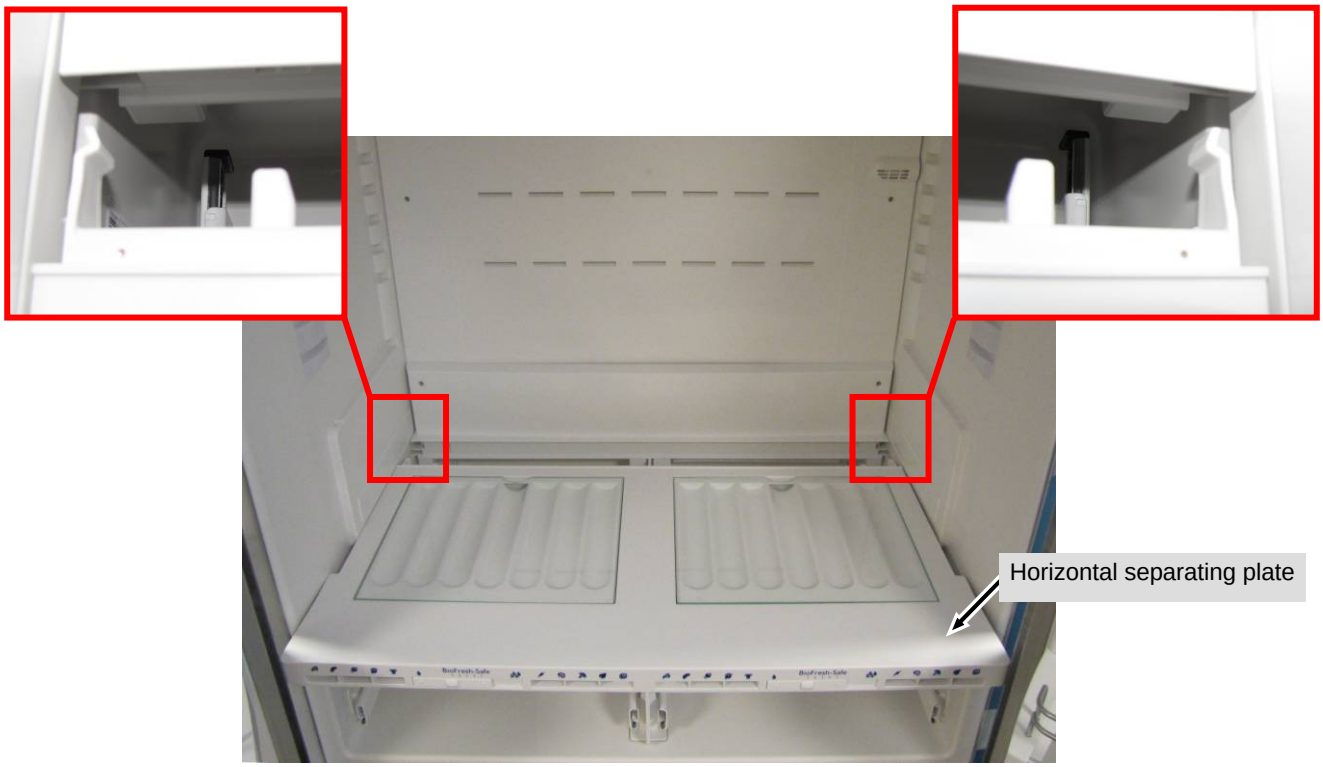



**Fig. 5.2.5 / 1**

**Humidity control plates:**
- They are situated on the underside of the horizontal separating plate.
- The two humidity control plates can be pushed back and off the separating plate

**Fig. 5.2.5/ 2**

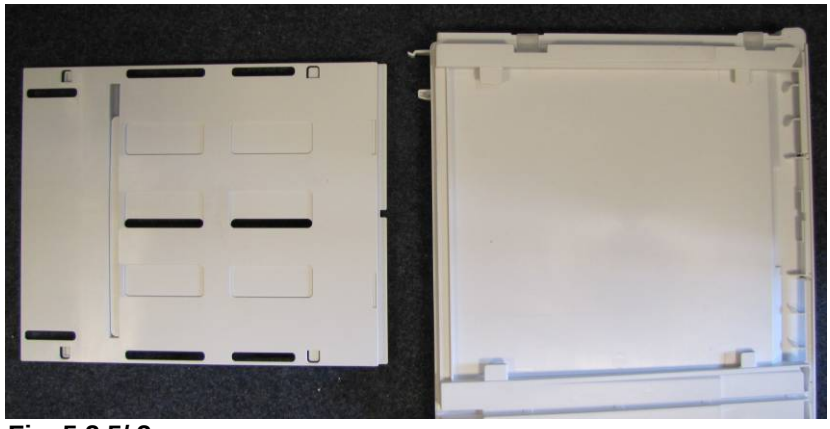


**Fig. 5.2.5/ 3**

**Lower evaporator cover:**

- Take the BioFresh air sensor from the guide and remove the four fastening screws of the lower evaporator cover.
- Remove the cover.

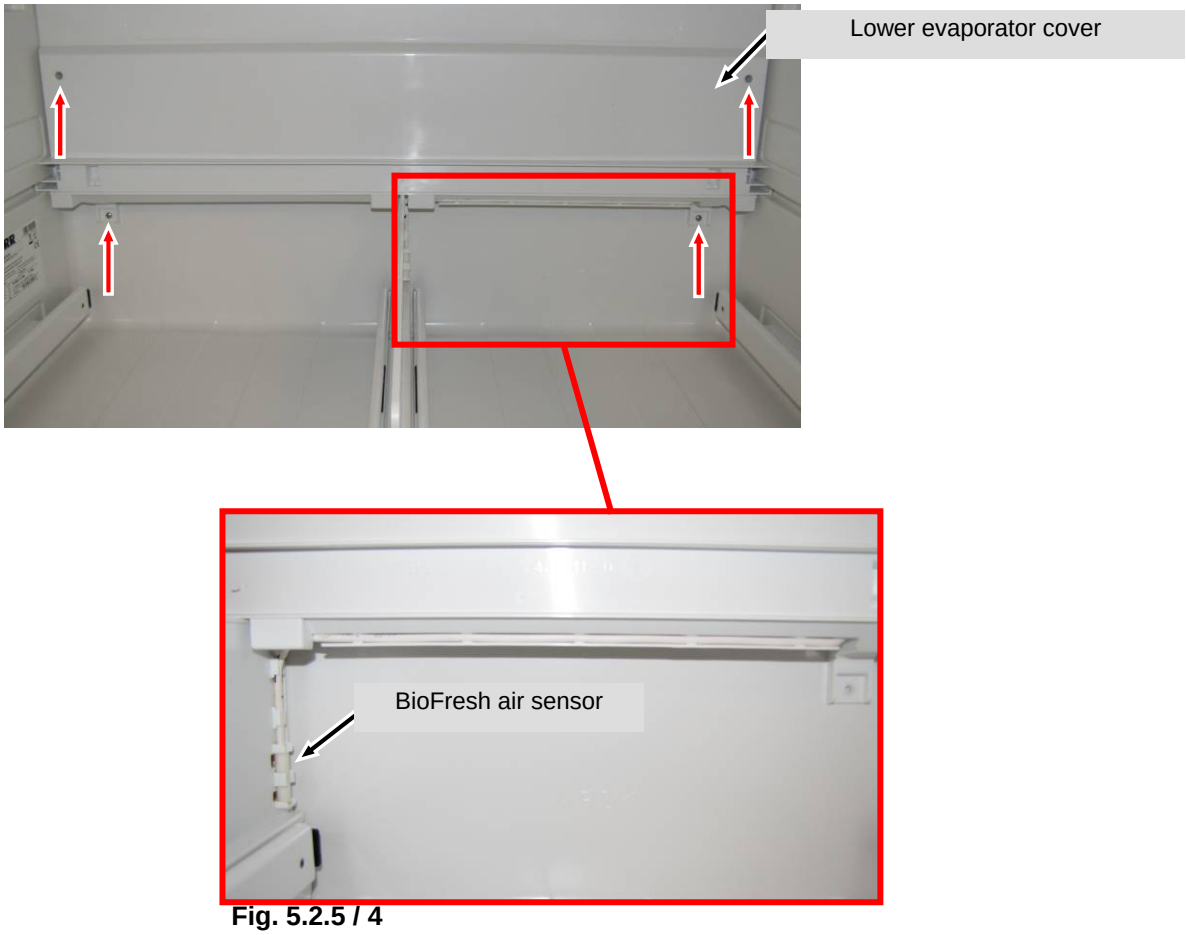



**Fig. 5.2.5 / 4**

**Upper evaporator cover:**

- Remove five fastening screws.
- Lower the cover a little and swing it to the right.

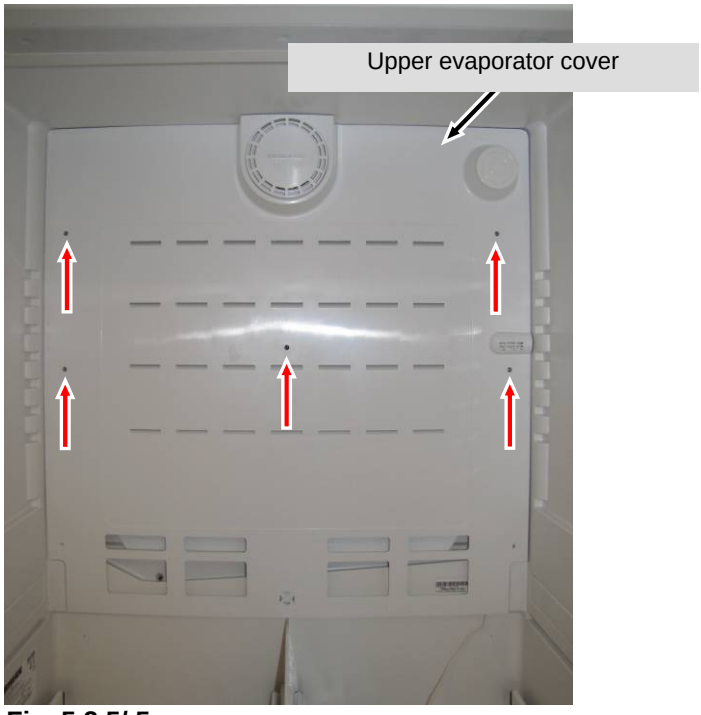



**Fig. 5.2.5/ 5**

**Fig. 5.2.5/ 6**

## 5.2.6 Filter head

**Filter head:**
- Make a clean, straight cut through the hoses on the back, about 10 cm below the feedthrough.
- Remove the fastening screws of the mount. Remove the filter head. If necessary, release the strain relief on the back and remove putty.
- Shorten the hose ends of the new filter head to the same length and fit the filter head.

**Fig. 5.2.6/ 1**

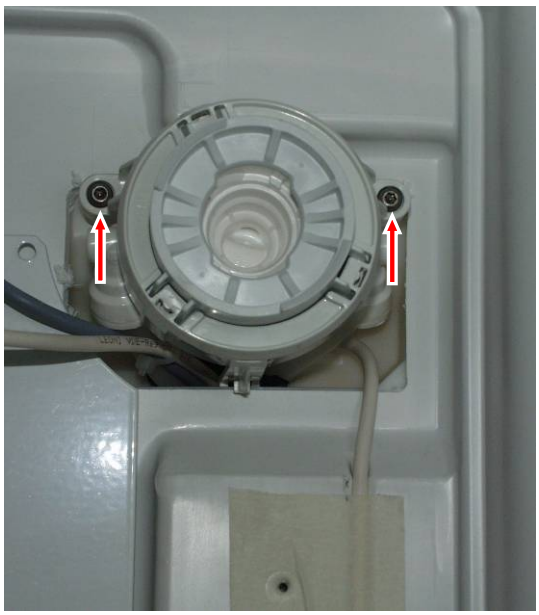


**Fig. 5.2.6/ 2**

**Connectors:**
- When connecting, pay attention that the hose ends are not mixed up (inlet and outlet have red and blue marking). The direction of water flow through the filter has to be correct.
- The hose ends have to be pushed into each connector to a depth of 17 mm (mark if necessary).
- Check for a firm fit and attach a circlip at either end (this prevents unlocking).
- Stow away the hoses and check for tightness (feed water using the IceMaker test program).

**Fig. 5.2.6/ 3**

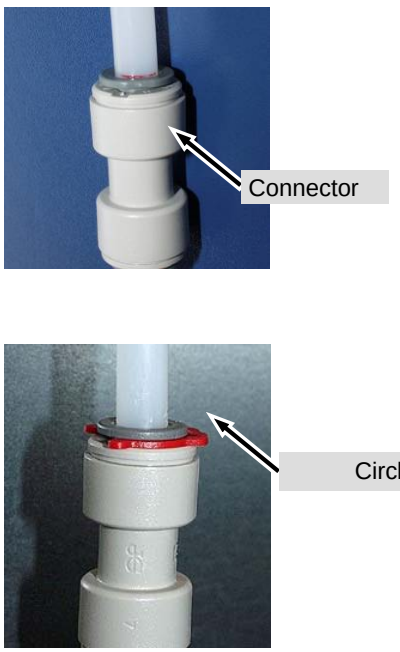
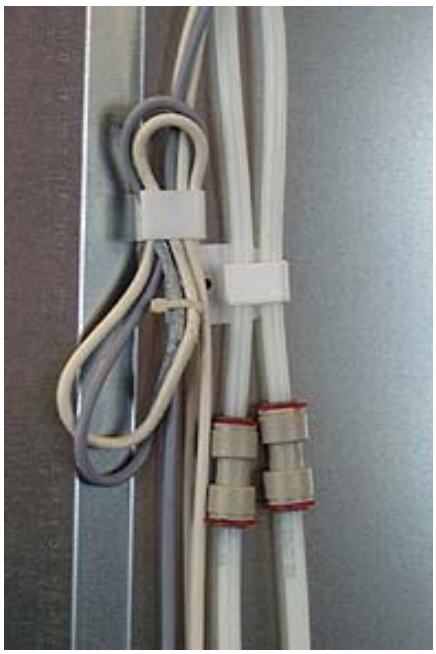



**Fig. 5.2.6/ 4**



## 5.2.7 Sensor

**BioFresh air sensor:** - Release the strain relief at the cable feedthrough on the back of the appliance and pull the sensor rearwardly out of the appliance.
- Fit the new sensor using the repair kit.

**Fig. 5.2.7 / 1**

**Refrigerator compartment air sensor:**
- Remove the polystyrene and pull the sensor out of the mount.
- Release the strain relief at the cable feedthrough on the back of the appliance and pull the sensor rearwardly out of the appliance.
- Fit the new sensor using the repair kit.
- The cable has to be stowed away in the labyrinth so that the cover rests against the compartment liner.

**Fig. 5.2.7 / 2**

**Refrigerator compartment evaporator sensor:**

- Undo the four bayonet screws.
- Swing the evaporator to the left. Pull the sensor out of the mount.
- Release the strain relief at the cable feedthrough on the back of the appliance and pull the sensor rearwardly out of the appliance.
- Fit the new sensor using the repair kit.

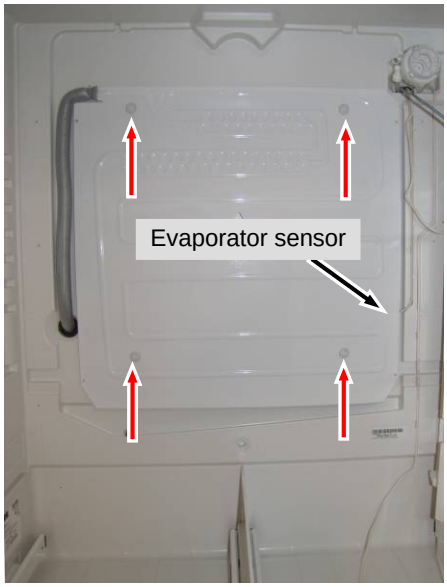



**Fig. 5.2.7 / 3**

**Fig. 5.2.7 / 4**

## 5.2.8 Fan

**Fan:**

- Disconnect the fan
- Unclip the fan together with the absorber ring.
- Slip the absorber ring off the fan.

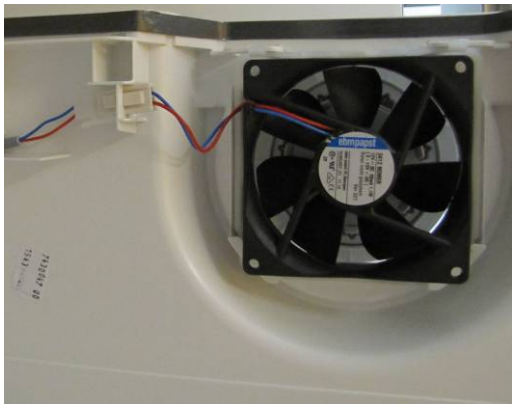


**Fig. 5.2.8 / 1**

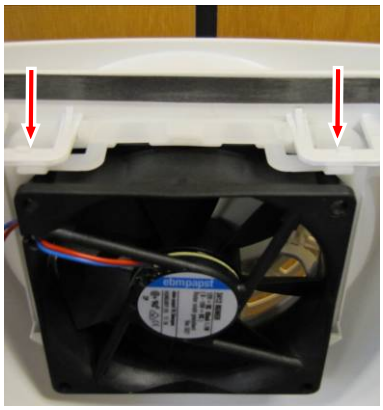


**Fig. 5.2.8 / 2**

**Fig. 5.2.8/ 3**

## 5.2.9 Fitting the evaporator cover

**Fitting:** - In order for the cover to rest against the compartment liner it is necessary to stow away especially the fan cables and air sensor cables in the recesses provided for the purpose. It is therefore advisable to draw extra cable length into the appliance and to push it out again through the rear wall when fitting the cover.
- The two retaining lugs on the top of the cover have to be pushed into the grooves of the compartment liner.

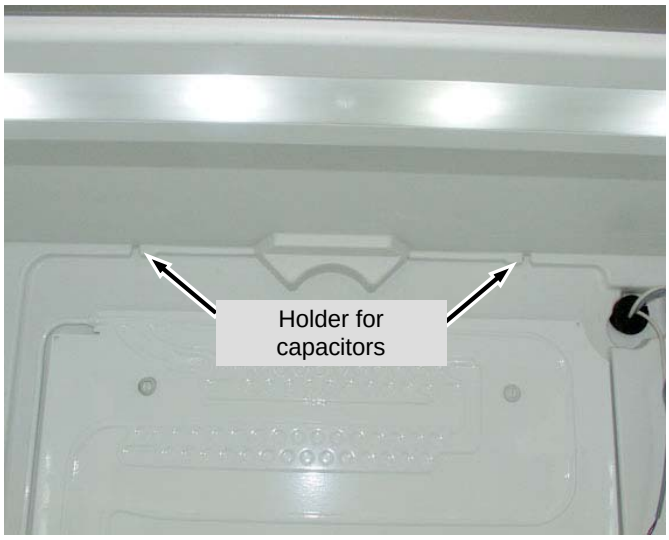



**Fig. 5.2.9/ 1**

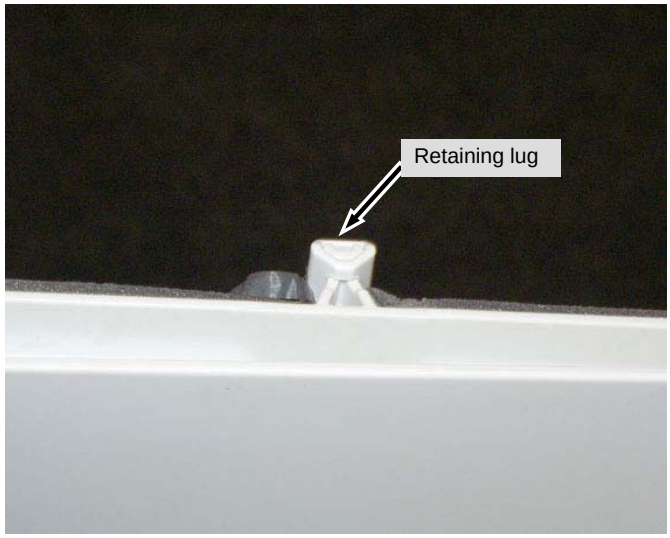



**Fig. 5.2.9/ 2**

## 5.3 Freezer compartment

### 5.3.1 Evaporator cover

**IceMaker:** - Press up the retaining lugs of the IceMaker and draw the IceMaker forwards.
- Disconnect cables.

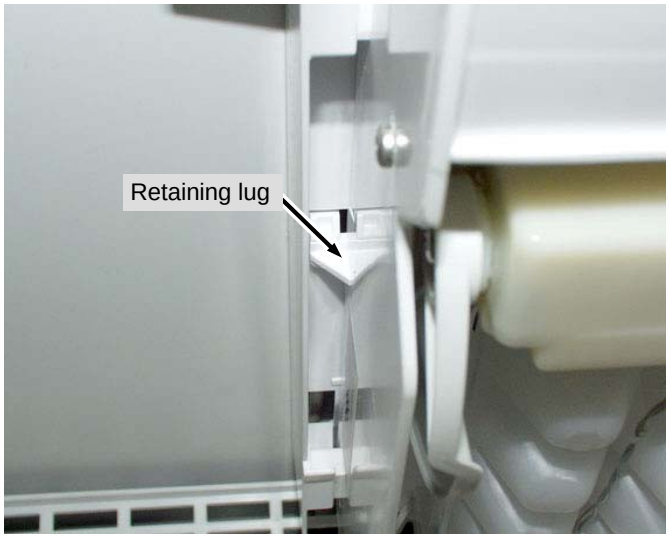



**Fig. 5.3.1/ 1**

**Fig. 5.3.1/ 2**

**Cover:** - Unclip the air sensor and remove the four screws.
- Draw the cover forwards and swing it out at the bottom.
- Disconnect the connecting cable to the reed contacts and remove the cover

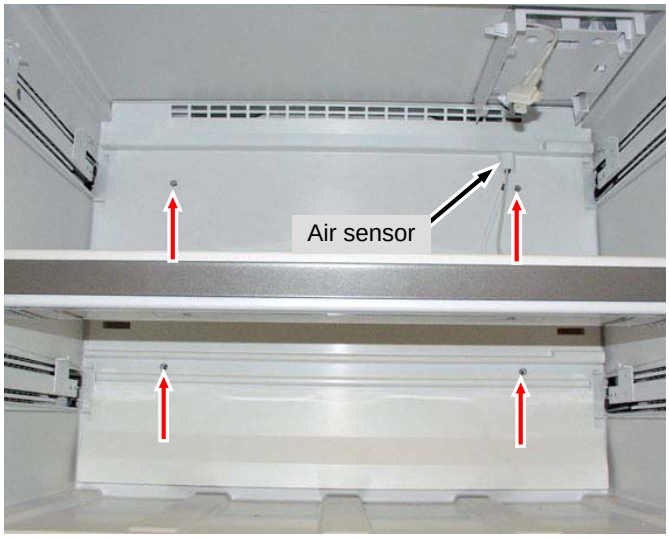



**Fig. 5.3.1/ 3**

**Fig. 5.3.1/ 4**

### 5.3.2 Air sensor

**Air sensor:**

- Release the strain relief at the cable feedthrough on the back of the appliance and pull the sensor rearwardly out of the appliance.
- Fit the new sensor using the repair kit.

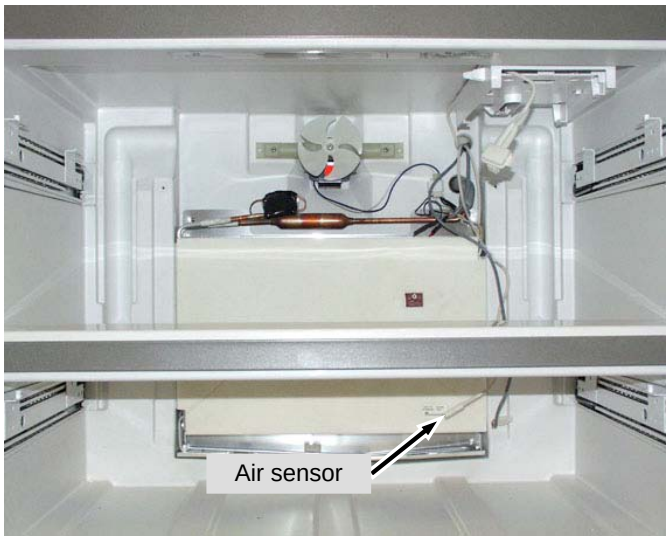



**Fig. 5.3.2 / 1**

### 5.3.3 Temperature limiter

**Temperature limiter:**

- Unscrew the temperature limiter.
- Detach the sheeting.
- Lift out the temperature limiter.
- The new temperature limiter is put together using the repair kit.

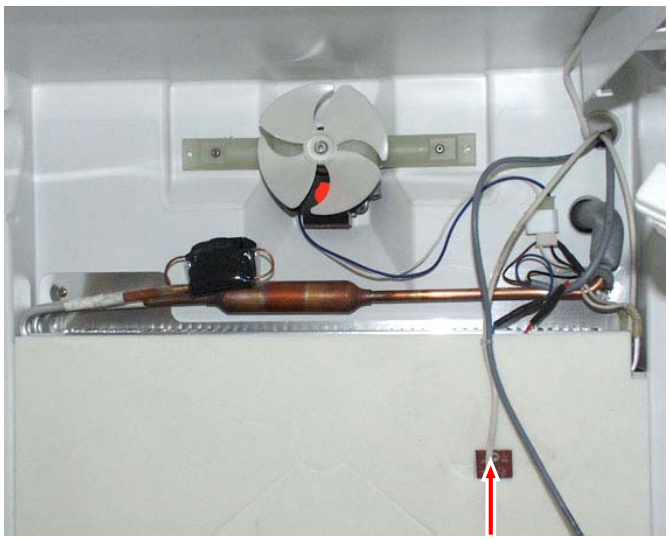


**Fig. 5.3.3 / 1**

### 5.3.4 Evaporator sensor

**Evaporator sensor:** Raise the evaporator module and swing it out in a forward direction.
- Make incisions in the sheeting at the marked locations (see **Fig. 5.3.4/ 1** and **Fig. 5.3.4/ 2**).
- Bend open the retaining lugs of the cover plate and remove it.
- Draw the evaporator sensor to the left, out of the lamellar evaporator.
- Release the strain relief at the cable feedthrough on the back of the appliance and pull the sensor rearwardly out of the appliance.
- Fit the new sensor using the repair kit.

**Defrost heater:** Is clipped into the evaporator fins. Can be replaced if defective.

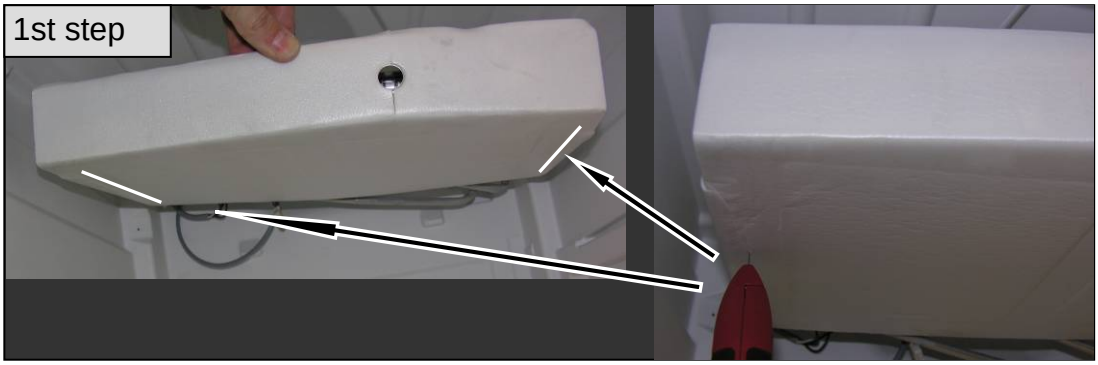



**Fig. 5.3.4/ 1** Making an incision in the sheeting

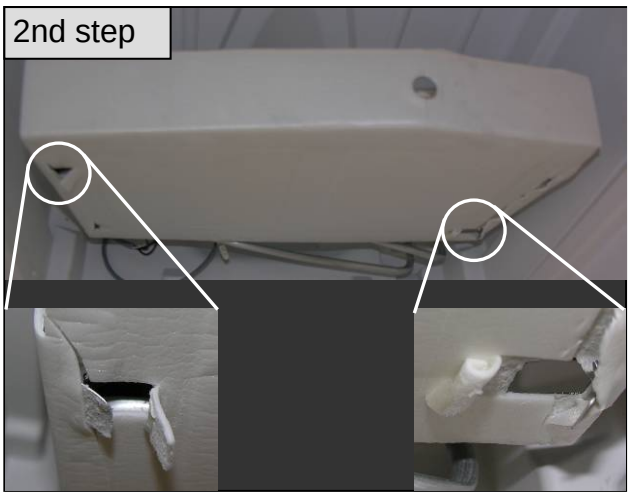



**Fig. 5.3.4/ 2** Cutting open the evaporator cover

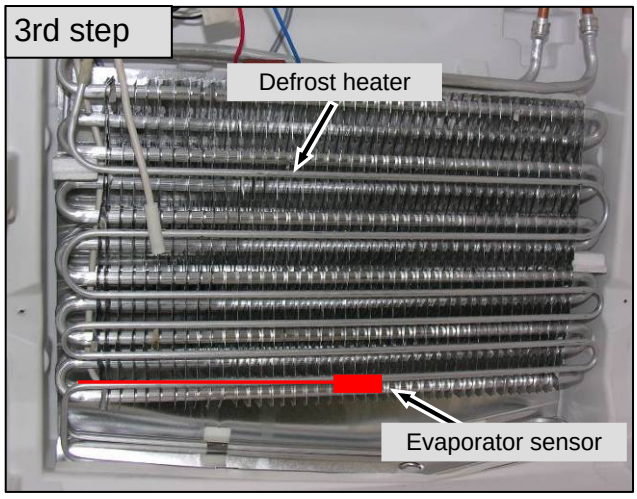



**Fig. 5.3.4/ 3** Lamellar evaporator

### 5.3.5 Fan

**Freezer compartment fan:**
- Disconnect the fan cable.
- Remove the fastening screws and detach the fan together with the mount.
- Remove the blades and strip off the rubber rings.
- Disengage the retaining lugs and remove the bracket of the mount.

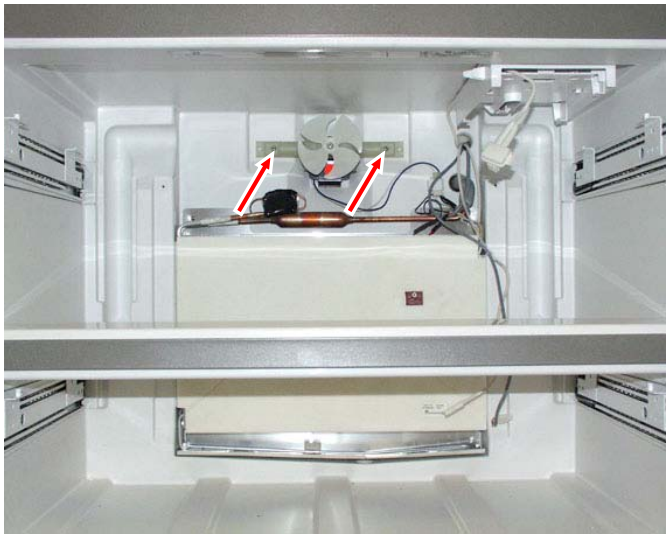


**Fig. 5.3.5/ 1**

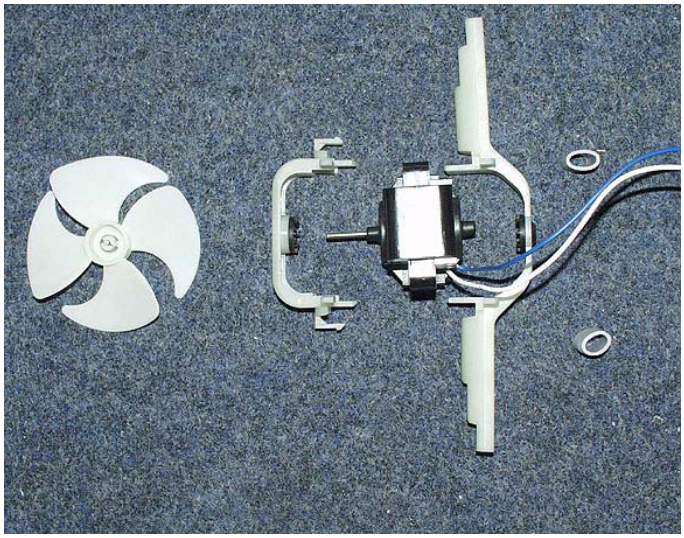


**Fig. 5.3.5/ 2**

### 5.3.6 Reed contact

**Reed PCB:**
- Remove the polystyrene strip on the back of the freezer compartment evaporator cover.
- Remove the reed PCB from the mount and disconnect it.

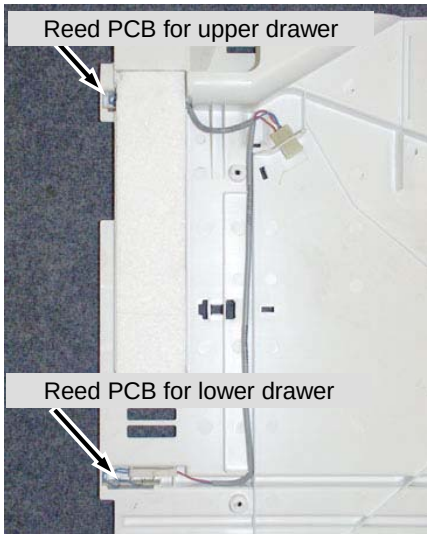



**Fig. 5.3.6/ 1**

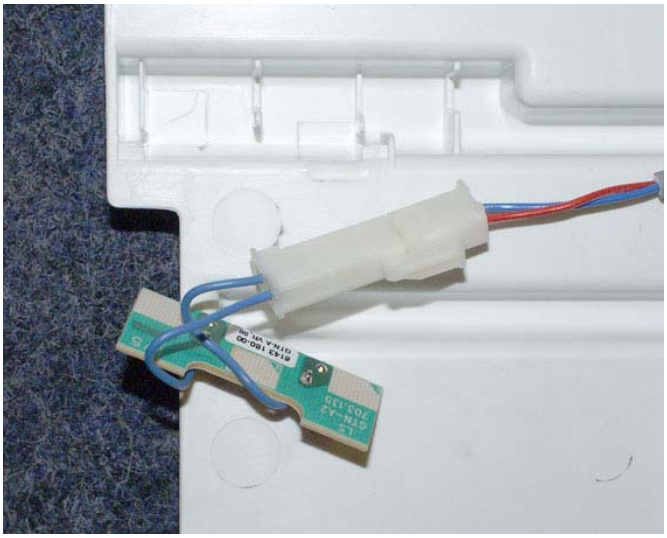


**Fig. 5.3.6/ 2**

**Position of the reed contacts:** - On the evaporator cover.

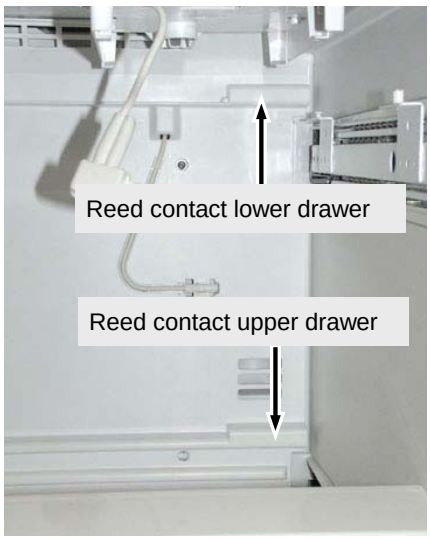



**Fig. 5.3.6 / 3**

**Position of the magnets:** - In back right corner of the drawers.

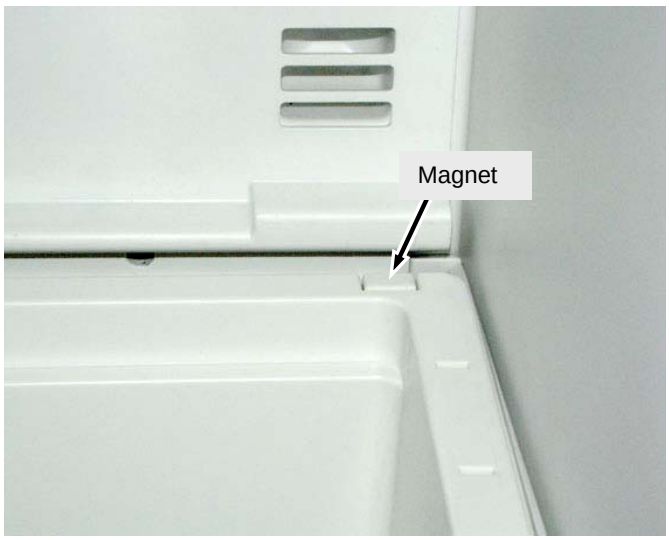



**Fig. 5.3.6 / 4**

### 5.3.7 Fitting the cover

**Cover:** - Air ducts must be free from cables.
- Therefore stow away the air sensor cables and reed PCB cables in the space above the evaporator.
- The cover has to rest fully against the compartment liner to ensure correct air conduction.
- Pay attention that the cover also makes contact with the ceiling of the compartment to permit the lower drawer to travel to its limit position when being closed.

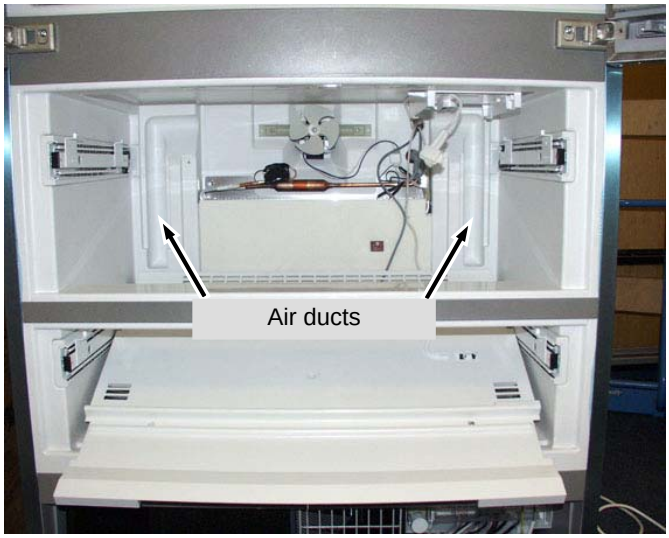



**Fig. 5.3.7/ 1**

**Fig. 5.3.7/ 2**

**Fig. 5.3.7/ 3**

**Fig. 5.3.7/ 4**

### 5.3.8 Fastening the freezer compartment drawers

**Drawer body:** - Raise the drawer body about 1 cm at the front and push it back about 1 cm
- Disengage the drawer body at the back and remove it.

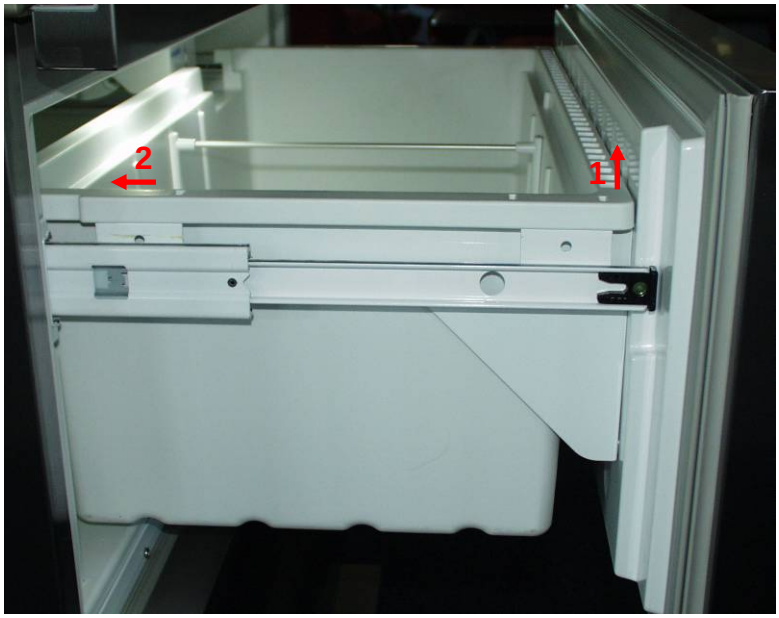



**Fig. 5.3.8 / 1**

**Door:** - Remove the four fastening screws
- Lift the door a little at the front, extricate it at the back and remove the door

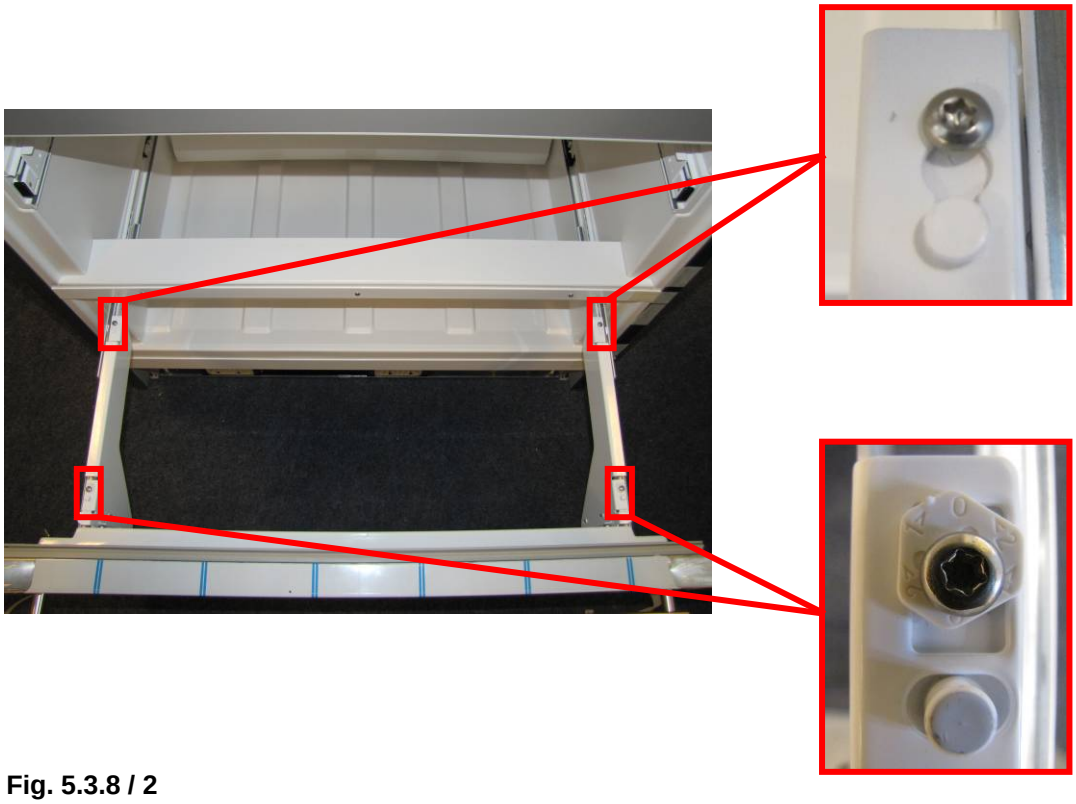


**Fig. 5.3.8 / 2**

**Horizontal adjustment:**
- When fitting the drawers, pay attention that the small plastic plates underneath the front screws are re-fitted properly.
- They enable the drawers to be horizontally adjusted so that the outer edges are in alignment with the outer side edges of the refrigerator compartment doors.
- Starting from the basic position (0) the two drawers can moved by 1 or 2 cm to the left or right. The numbers and directional arrow are embossed on the small plates for assistance.

Drawer moved 2 mm to the left:

**Fig. 5.3.8/ 3**

Neutral position:

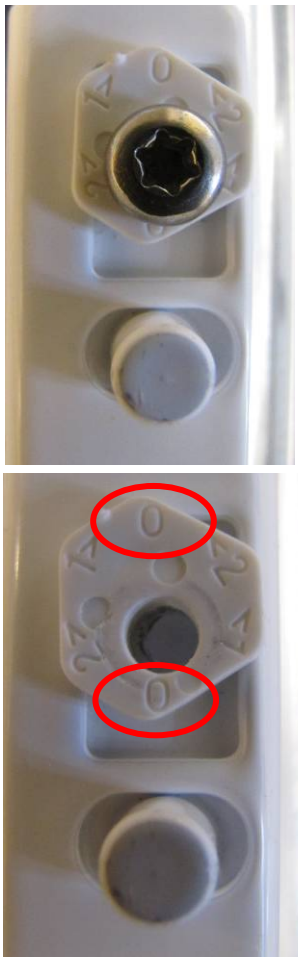


**Fig. 5.3.8/ 4**

Drawer moved 2 mm to the right:

**Fig. 5.3.8/ 5**

# 6.0 Technical data

## 6.1 General

**Sensor values:**

| Temperature °C | Resistance value kOhm |
|---|---|
| +35 | 3.1 |
| +30 | 3.8 |
| +25 | 4.7 |
| +20 | 5.9 |
| +15 | 7.4 |
| +10 | 9.4 |
| +5 | 11.9 |
| 0 | 15.4 |
| -5 | 19.9 |
| -10 | 26.0 |
| -15 | 34.3 |
| -20 | 45.7 |
| -25 | 61.4 |
| -30 | 83.4 |
| -35 | 114.5 |

## 6.2 Refrigerator/BioFresh compartment

| | | |
|---|---|---|
| **Interior light** | Wattage: | approx. 14 W |
| **Fan:** | Wattage:<br>Voltage: | approx. 5.5 W<br>at 11 V/DC |
| **Heater for FrenchDoor seal:** | Wattage:<br>Voltage: | 2x approx. 5 W<br>24 V/DC |
| **Channel heater:** | Wattage:<br>Voltage: | approx. 2 W<br>24 V/DC |

## 6.3 Freezer compartment

| | | |
|---|---|---|
| **Interior light** | 2 strips with 2 LEDs each:<br>Wattage:<br>Voltage:<br>In total: | <br>4 x approx. 1.1 W<br>approx. 18-20 V/DC, with connected LED lighting.<br>4.4 W |
| **Fan:** | Wattage:<br>Voltage: | approx. 4,5 W<br>230 V/AC |
| **Defrost heater:** | Wattage:<br>Voltage: | approx. 185 W<br>230 V/AC |
| **Temperature fuse:** | Trigger temperature: | +84°C (is defective after it has been tripped and has to be replaced) |

## 7.0 **Customer menu** – permanent activation of FrenchDoor heater

**Customer menu activation:** Press **"SuperFrost"** for approx. 5 seconds.

All the functions that can be set and activated by the customer (e.g. display brightness, child lock, ...) are described in the operating instructions.

Permanent activation of the heater is not described in the operating instructions for reasons of energy consumption:

Should permanent activation of the heater be necessary due to heavy condensation on the FrenchDoor seal, a new heater activation period (HH) has to be assigned to the HI state:

- Press the SuperFrost symbol for 5 seconds → customer menu open
- Press the Down symbol for the freezer compartment until H appears in the display
- Press the SuperFrost symbol → H0 is indicated in the display
- Press the Up symbol for 5 seconds → HH is indicated in the display
- Press the SuperFrost symbol
- Press the Up symbol for the freezer compartment until HI appears in the display
- Press the SuperFrost symbol
- Press the ON/OFF symbol for the freezer compartment → customer menu closed

| | New | Activation period for HI |
|---|---|---|
| **HO** | Permanently OFF | |
| **HA** | 20" ON / 40" OFF | |
| **HI** | 20" ON / 40" OFF | HL (as standard) |
| | Permanently ON | HH |

The original heater activation period (HL) can be re-assigned to the HI state at a later stage (e.g. when the ambient humidity has returned to a lower level):

- Press the SuperFrost symbol for 5 seconds → customer menu open
- Press the Down symbol for the freezer compartment until H appears in the display
- Press the SuperFrost symbol → H0 is indicated in the display
- Press the Down symbol for 5 seconds → HL is indicated in the display
- Press the SuperFrost symbol
- Press the ON/OFF symbol for the freezer compartment → customer menu closed

# 8.0 Service menu

The service menu may be used by service technicians only.

**Activation of service menu:** Press **“Up”** + **“ON/OFF”** simultaneously for about 5 seconds (freezer compartment buttons)

Once the **service menu is activated,** then **“MENU” flashes in the display.**

## 8.1 Manual defrosting H

| Step | Display | Operation | Display following operation | Testing option / Info |
|---|---|---|---|---|
| **Service menu start** | | | | SF = SuperFrost |
| 1 | Actual value | Press **“Up”** and **“ON/OFF”** simultaneously for 5 seconds | H flashes | Service menu active, Manual defrosting selected |
| 2 | H flashes | Press “SF” once | H I static | **Manual defrosting ON** selected |
| 3 | H I static | Press “SF” once | A static | **Manual defrosting ON** activated |
| Manual defrosting is ended by: - Switching appliance OFF/ON<br>- Automatic after the defrost parameters are reached | | | | |

## 8.2 Demo mode d

| Step | Display | Operation | Display following operation | Testing option / Info |
|---|---|---|---|---|
| **Start service menu -- Demo mode ON --** | | | | SF = SuperFrost |
| 1 | Actual value | Press **“Up”** and **“ON/OFF”** simultaneously for 5 seconds | H flashes | Service menu active |
| 2 | H flashes | Press “Up” once | d flashes | **Demo mode** selected |
| 3 | d flashes | Press “SF” once | d 1 static | **Demo mode ON** selected |
| 4 | d 1 static | Press “SF” once | Set value and “**Demo**” | **Demo mode ON** |
| **Start service menu -- Demo mode OFF--** | | | | SF = SuperFrost |
| 1 | Actual value and “**Demo**” | Press “**Up**” and “**ON/OFF**” simultaneously for 5 seconds | H flashes and “**DEMO**” | Service menu active |
| 2 | H flashes | Press “Up” once | d flashes and “**DEMO**” | **Demo mode** selected |
| 3 | d flashes and “**DEMO**” | Press “SF” once | d0 static and “**Demo**” | **Demo mode OFF** selected |
| 4 | d0 static and “**Demo**” | Press “SF” once | Actual value | **Demo mode OFF** |

The text “**Demo**” in the display informs of the **activated demo mode**.
**Demo mode** can be deactivated only via service menu, not by OFF/ON or disconnection from the supply.
**Operation switches to the mode wanted, demo mode or normal mode, as soon as “SuperFrost” has been actuated.**

## 8.3 Panel test

| Step | Display | Operation | Display following operation | Testing option / Info |
|---|---|---|---|---|
| **Service menu start** | | | | SF = SuperFrost |
| 1 | Actual value | Press “**Up**” and “**ON/OFF**” simultaneously for 5 seconds | flashes | Service menu active |
| **Panel test -- test of sensor buttons, display elements, door sensor and beep --** | | | | |
| 2 | flashes | Press “Up” twice | flashes | Panel test selected |
| 3 | flashes | Press “SF” once | static | Panel test activated |
| 4 | static | Press “SF” once | All symbols/segments | All symbols/segments |
| 5 | All symbols/segments | Doors closed/open and press all buttons one after the other (each operation is confirmed by a beep) | - Beep for 2 sec.<br>- appliance switches OFF | After the last button has been pressed a beep sounds for 2 seconds, only if the test has been successful. |
| End | Panel test cannot be ended in step 2, for example, it has to be performed in full.<br>Should a **button/sensor be defective**, there will be **no 2-second beep** and the **appliance will not switch OFF**.<br>The appliance then has to be unplugged and plugged back in again. | | | |

## 8.4 Sensor test (display of temperature) and door contact test

### 8.4.1 Refrigerator/freezer compartment

| Step | Display | Operation | Display following operation | Testing option / Info |
|---|---|---|---|---|
| **Service menu start** | | | | SF = SuperFrost |
| 1 | Actual value | Press “**Up**” and “**ON/OFF**” simultaneously for 5 seconds | H flashes | Service menu active |
| **Sensor test and door contact test** (sensor values without offset, appliance in control mode) | | | | |
| 2 | H flashes | Press “Up” three times | E- flashes | Sensor test mode selected |
| 3 | E- flashes | Press “SF” once | E1 static | Sensor test mode activated |
| 4 | E1 static | Press “SF” once | 13 flashes alternately with sensor temperature | **Freezer compartment air sensor** |
| 5 | 13 flashes alternately with sensor temperature | Press “Up” once | 14 flashes alternately with sensor temperature | **Freezer compartment evaporator sensor** |
| 6 | 14 flashes alternately with sensor temperature | Press “Up” once | 11 flashes alternately with sensor temperature | **Refrigerator compartment air sensor** |
| 7 | 11 flashes alternately with sensor temperature | Press “Up” once | 12 flashes alternately with sensor temperature | **Refrigerator compartment evaporator sensor** |
| 8 | 12 flashes alternately with sensor temperature | Press “Up” once | 10 flashes alternately with | **BioFresh air sensor** |
| 9 | 10 flashes alternately with sensor temperature | Press “Up” once | 17 flashes alternately with sensor temperature | **Ambient air sensor** |
| 10 | 17 flashes alternately with sensor temperature | Press “Up” once | 1A flashes alternately with oP or cL | **Refrigerator compartment door contact** (cL=door closed, oP=door open) |
| 11 | 1A flashes alternately with sensor temperature | Press “Up” once | 16 flashes alternately with oP or cL | **Freezer compartment door contact**(cL=door closed, oP=door open) |
| End | Press “**ON/OFF**” once: Return to level 2 E1 . No further points selectable with this appliance.<br>Press “**ON/OFF**” twice: Return to level 1 E- . Points: d, P, E-, L- selectable<br>Press “**ON/OFF**” three times: Return to normal/control mode | | | |

### 8.4.2 IceMaker

| Step | Display | Operation | Display following operation | Testing option / Info |
|---|---|---|---|---|
| **Service menu start** | | | | SF = SuperFrost |
| 1 | Actual value | Press “**Up**” and “**ON/OFF**” simultaneously for 5 seconds | H flashes | Service menu active |
| **Sensor test and door contact test** (sensor values without offset, appliance in control mode) | | | | |
| 2 | H flashes | Press “Up” three times | E- flashes | **Sensor test mode** selected |
| 3 | E- flashes | Press “SF” once | E1 static | **Sensor test mode activated** |
| 4 | E1 static | Press “Up” once | Ec static | **IceMaker selected** |
| 6 → 5 | Ec static | Press “SF” once | c1 flashes alternately with sensor temperature | **IceMaker air sensor** |
| 5 ← 6 | c1 flashes alternately with sensor temperature | Press “Up” once | cA flashes alternately with oP or cL | **Ice-cube drawer door contact** (oP=door open, cL=door closed) |
| **End** | Press “**ON/OFF**” once: Return to level 2 Ec. No further points selectable with this appliance.<br>Press “**ON/OFF**” twice: Return to level 1 E-. Points: d, P, E-, L selectable<br>Press “**ON/OFF**” three times: Return to normal/control mode | | | |

## 8.5 Service mode

### 8.5.1 Refrigerator/freezer compartment

| Step | Display | Operation | Display following operation | Testing option / Info | |
|---|---|---|---|---|---|
| **Service menu start** | | | | SF = SuperFrost | |
| 1 | Actual value | Press “**Up**” and “**ON/OFF**” sim. for 5 seconds | flashes | Service menu active | |
| **Service mode -- testing electric loads--** | | | | | **Power input** |
| 2 | flashes | Press “Up” four times | flashes | Service mode selected | --- |
| 3 | flashes | Press “SF” once | static | Service mode activated | --- |
| 4 | static | Press “SF” once | static | **All OFF** | Approx. 4 W |
| 15→5 | static | Press “Up” once | static | **Freezer compartment compressor ON** | - |
| 6 | static | Press “Up” once | static | **Refrigerator compartment compressor ON** | - |
| 7 | static | Press “Up” once | static | **Freezer compartment fan ON** | Approx. 8 W |
| 8 | static | Press “Up” once | static | **Freezer compartment defrost heater ON** | Approx. 190 W |
| 9 | static | Press “Up” once | static | **Refrigerator compartment light ON** | Approx. 18 W |
| 10 | static | Press “Up” once | static | **Refrigerator compartment fan, slow** | Approx. 6 W |
| 11 | static | Press “Up” once | static | **Refrigerator compartment fan, fast** | Approx. 7 W |
| 12 | static | Press “Up” once | static | **Water channel heater ON** | Approx. 6 W |
| 13 | static | Press “Up” once | static | **Freezer compartment light ON** | Approx. 11 W |
| 14 | static | Press “Up” once | static | **Condenser fan ON** | Approx. 9 W |
| 15 | static | Press “Up” once | static | **FrenchDoor heater ON** | Approx. 13 W |
| 5 ←15 | static | Press “Up” once | static | **Return to step 5** | --- |

| | |
|---|---|
| End | Press “**ON/OFF**” once: Return to level 2 L1. Points: L1, L2, L3, selectable<br>Press “**ON/OFF**” twice: Return to normal/control mode |

## 8.5.2 IceMaker L2

**Note:** - The IceMaker self test (**8.5.2)** can be performed only once.
- In order to be able to carry out the self test anew, the appliance has to be disconnected from the supply.

| Step | Display | Operation | Display following operation | Testing option / Info |
|---|---|---|---|---|
| **Service menu start** | | | | SF = SuperFrost |
| 1 | Actual value | Press “**Up**” and “**ON/OFF**” sim. for 5 seconds | H flashes | Service menu active |
| **Service mode -- testing electric loads--** | | | | |
| 2 | H flashes | Press “Up” four times | L flashes | **Service mode** selected |
| 3 | L flashes | Press “SF” once | L1 static | **Service mode activated** |
| 4 | L1 static | Press “Up” once | L2 static | IceMaker **selected** |
| 5 | L2 static | Press “SF” once | 20 static | **All OFF** |
| 12 → 6 | 20 static | Press “Up” once | 22 flashes alternately with -0 | **All OFF** |
| 7 | 22 flashes alternately with -0 | Press “SF” once | 22 flashes alternately with -1 | **- Ice-cube tray emptied and moves back to home position**<br>**- 3 seconds solenoid valve ON**<br>***Drawer can stay open in the process!*** |
| 8 | 22 flashes alternately with -1 | Press IceMaker “On/Off” once | 22 flashes alternately with -0 | **All OFF** |
| 9 | 22 flashes alternately with -0 | Press “Up” once | 23 flashes alternately with -0 | **All OFF** |
| 10 | 23 flashes alternately with -0 | Press “SF” once | 23 flashes alternately with -1 → -0 | **- Ice-cube tray emptied and remains in ejection position**<br>**- 25 seconds solenoid valve ON**<br>***Drawer has to be closed in the process!***<br>After 25 seconds have elapsed, 23 again flashes alternately with -0 |
| 11 | 23 flashes alternately with -0 | - Press IceMaker ON/OFF button (→ switch ON)<br>- Close drawer | 23 flashes alternately with -0 | **IceMaker switches on and ice-cube tray moves back to home position** |
| | 23 | | | |

| | | | | |
|---|---|---|---|---|
| 6 ← 12 | flashes alternately with -0 | Press “Up” once | static | **Return to step 6** |
| **End** | Press “**ON/OFF**” once: Return to level 2 : Items: , , selectable<br>Press “**ON/OFF**” twice: Return to normal/control mode | | | |

### 8.5.3 Solenoid valve

| Step | Display | Operation | Display following operation | Testing option / Info |
|---|---|---|---|---|
| **Service menu start** | | | | SF = SuperFrost |
| 1 | Actual value | Press “**Up**” and “**ON/OFF**” sim. for 5 seconds | flashes | Service menu active |
| **Service mode -- testing electric loads--** | | | | |
| 2 | flashes | Press “Up” four times | flashes | **Service mode** selected |
| 3 | flashes | Press “SF” once | static | **Service mode activated** |
| 4 | static | Press “Up” once | static | IceMaker **selected** |
| 5 | static | Press “Up” once | static | **Solenoid valve selected** |
| 6 | static | Press “SF” once | | **All OFF** |
| 9 → 7 | static | Press “Up” once | flashes alternately with -0 | **All OFF** |
| 8 | flashes alternately with -0 | Press “SF” once | flashes alternately with - → -0 | **- 10 seconds solenoid valve ON**<br>After the 10 seconds have elapsed, flashes alternately with -0 |
| 7 ← 9 | flashes alternately with -0 | Press “Up” once | static | **Return to step 6** |
| **End** | Press “**ON/OFF**” once: Return to level 2 : Items: , , selectable<br>Press “**ON/OFF**” twice: Return to normal/control mode | | | |

# 9.0 Error code table

| Error code | Defective component | Emergency mode |
|---|---|---|
| F0 | BioFresh air sensor | Compressor 20 min. ON, 40 min. OFF |
| F1 | Refrigerator compartment air sensor | Compressor 20 minutes ON and 40 minutes OFF. |
| F2 | Refrigerator compartment evaporator sensor | Compressor 20 minutes ON and 40 minutes OFF. |
| F3 | Freezer compartment air sensor | Compressor continuous operation |
| F4 | Freezer compartment evaporator sensor | Compressor continuous operation |
| F7 | Ambient temperature sensor | No switching value correction |
| FE | IceMaker sensor | |